The Commercial Car Journal

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The Difference Between B*u*NK and B*a*NK is "U"

While This is Not a Treatise on the Trade-in Problem There is a Tie-up Between It and What Follows

HOW often have you heard it said, "that all motor trucks are about alike," or that "one truck is about as good as another." Perhaps the conversation ran something like this: "Yes, such and such is a pretty good truck, but you can buy the same job with the same stuff in it for a lot less."

That this condition is apparent is attested by the fact that with few exceptions truck fleets are not standardized as to makes. An analysis shows that approximately five out of every seven trucks of the average fleet under fifty are of different make.

THE QUESTION OF PRICE Many owners believe that trucks are alike and that the only difference lies in the price. In other words, price is the dominating factor in buying and that the claims that the dealer makes for his truck are all "the bunk" anyway.

Isn't that a sad commentary to place upon the product you are selling?

Now there may be some similiarity in appearance in motor trucks, just as there is in shirts or writing desks, but that's where the comparison stops.

Of course there's a difference — A GREAT BIG DIFFERENCE—even between makes that are similar in major specifications.

The designer's conception of balance in design, the arrangements of the units, the factors of safety in certain units and so on differentiate one truck from another. In every truck there are some features which are outstanding. It may be some particular construction or some process which has been incorporated which makes that truck especially fitted for a certain class of work.

Does the price of your truck depend **entirely** on the circumstances incident to the individual sale?

Is the truck you are selling so devoid of merit, features, qualities—call it what you like—that the price you are asking means nothing?

Mr. Dealer, doesn't the price mean something to you?

A DEFINITE SOMETHING!

Do you handle a truck that will permit you to deal with all your customers on the same basis? Do you sell a truck upon which a definite retail price has been established?

WOULD IT HELP YOU IF THE TRUCK YOU ARE SELLING HAD AN ADVERTISED PRICE? A truck upon which the discount to you is the same as any other dealer handling that make of truck?

How much more profit would you have in bank, if every job you sold had brought the list price?

GETTING THE REPEAT ORDER How about the cost of obtaining the "repeat order"? It is a well known fact that the cost of getting the first order from a customer is usually the most expensive in any line of business. When a customer is satisfied, getting repeat business involves less selling expense and is the best profit producer. Even the corner butcher cannot ignore that fact. When a new customer moves into the neighborhood he realizes that if he treats that customer right at the beginning he will assure himself of the future trade from that customer.

Besides the monetary loss, isn't there something which is lost sight of entirely in transactions of this kind?

WHAT ARE YOU SELLING? Where does the "pride of ownership" come in—isn't that worth selling the customer?

How can the owner be sold on the merits of your truck, on the reputation of the factory you represent and all that, when you let the owner **make the price of your truck for you?**

You do not have to travel very far to find products in other lines which are sold at the price advertised.

For instance, when you think of hats, the name Stetson or Dunlop or Knox stands out in your mind as quality products. When you buy one of these hats, **you know you will pay the advertised price.** The price will be the same to you as any other customer. There's no quibbling about it and you pay it because you believe it wears better than the cheaper hat and you are paying something for the reputation of the manufacturer. You are paying for "pride of ownership." You know that if that hat doesn't wear like the salesman said it would you can get your money back. When you buy such an article you know the manufacturer stands

behind his product. He has a REPUTATION TO SUSTAIN. That is your insurance.

PRIDE OF OWNERSHIP When you go to your favorite clothing merchant and he shows you material for a suit which costs $100 and other material that would cost $85, you don't expect to get the better material in the cheaper suit. You patronize that merchant because he has a **reputation** for making clothes that are stylish and distinctive and that wear well. You take pride in wearing the clothes he makes, because "the pride of ownership" is worth something to you. He has built up a reputation that he must sustain, and that reputation is your insurance. But he cannot keep that reputation unless he gets the price he asks.

THIS IS THE BUNK Of course, it's the easiest thing in the world to say that this is all bunk—that you cannot compare motor trucks with clothing, hats, jewelry and so forth—that those businesses are different—that the automotive industry is **so very unusual** in this respect.

HOW DO YOU GET THAT WAY?

Just take a look around, Mr. Dealer, in your own industry. Check up some of the successful dealers and you will find that they are handling trucks that ARE being sold at their list prices.

THE ETERNAL QUESTION The discounts those dealers receive are not any higher, usually not so large. Those dealers know that they cannot afford to handle a truck that is subject to all kinds of price variations. They know that the reputation of the manufacturer has to be sustained. They know that a **big margin to play with** doesn't mean anything. They know that the price is right and that the buyer will get every dollar's worth out of that truck that he puts into it. They know too that an advertised price permits them to do business with all customers on an equal basis. They do not have to play favorites. They know the value of the "pride of ownership."

Why Not Enforce the Personal Obligation?

By W. S. KYLE
Manager of Collections, United States Motor Truck Company, Cincinnati, Ohio

CREDIT is the cornerstone of most successful business. The difference between proper and improper extension of credit represents the "unknown quantity"—the difference between success and failure. Many individuals, as well as many business organizations, today enjoy advantages far beyond what would be possible were it not for the credit system. Credit may be extended in various ways other than granting 30, 60 or 90 days in which to pay. The sale of trucks or passenger cars, on the deferred payment plan, is none other than a form of extending credit. Many do not look at it this way and do not take the precautions followed in the regular extension of credit. Many manufacturers have been able to greatly increase their business through the development of an acceptable deferred payment plan. However, some abuses have sprung up in connection with this, in some cases of such importance that they threaten the very structure on which the plan has been built. When a buyer, with a real need for what he buys, honestly wants to pay for what he is getting, the plan that enables him to pay part cash and the balance in installments is a real help. Frequently, it enables him to engage in business—the business of hauling with a motor truck—when he could not possibly engage in it were he forced to pay all cash. However, if the buyer takes advantage of this plan without a real, honest, intention and desire to pay fully, and the dealer or manufacturer who makes the sale allows the buyer to avoid some of his obligation, the manufacturer or dealer suffers financial loss. The buyer suffers loss of character, one of the most essential requisites in the well being of any civilized country.

Too often the buyer makes his purchase with the idea that he will pay as long as he can conveniently, then retain the vehicle as long as possible without payments, or as long as he can get by on excuses, and then turn it back to the dealer. His idea being to slide out from under his obligation. Every dealer, or manufacturer, who sells on the deferred payment plan should be careful that his notes and mortgage, conditional sales agreement, or whatever form of contract he uses, not only retains in him the **title until payment is fully made,** but he should make sure that there is also the personal obligation of the buyer **for the full amount due in addition to the lien** on the vehicle.

Many buyers feel that there is no personal obligation attached, that their responsibility is limited to the value of what they bought. They buy a car, use it hard, abuse it frequently, or neglect it so that the depreciation is especially heavy, yet they still feel they can turn it back and while its present value may not equal the remaining notes, they will be relieved from all obligation. In many cases the seller entertains much the same view. If conditions break badly, the dealer or manufacturer shoulders his loss and allows the buyer to go free. This loss to the dealer, or manufacturer, frequently means more than what appears on its face. **It means added expense of doing business.** It means a **real loss that must be met some way** and the honest buyer, frequently the cash buyer, is the one forced to make up this loss.

On the porch of a hotel in one of the smaller towns of Illinois were seated several traveling men a short time ago. One represented a large tire manufacturer. He was leading the conversation. Presenting the question under discussion was the number of cars, and trucks, which must be taken back by the dealer and manufacturer because the buyers were not meeting their payments. This fellow soon said, "I could buy a car, pay part cash, use it in my business, keep it as long as I could, then turn it back and be away ahead of the game." Do you suppose the company that this man represented would feel justly proud of the position he was taking? However, he expressed a far too prevalent idea.

For the good of themselves, and the good of the ultimate buyer as well, it is most important that the dealer see to it that he not only enforces the obligation of his chattel mortgage, conditional sales agreement, or whatever it may be, but also enforces to the limit the personal obligation of the buyer. When this is universally done, it will mean better business from the standpoint of being more profitable. What if you do hurt some one's feelings? What if they do look on you as taking harsh action? Is the friendship of a man who has no more character than to want to avoid his just obligations worth keeping when you must pay for it by cancelling obligations rightly due you? Really, in the end, the one who enforces the personal obligation of the buyer is doing the best for all concerned, and is conducting his business on a basis that will plug up the leaks and enforce the respect of the buying public.

Those who are selling on the deferred payment plan, but do not have their papers in such shape that the personal obligation can be enforced, should remedy this defect at once.

"He profits most who serves best." This applies to just such a situation. The ultimate good is the good to be considered, for it is of the greatest importance and all customers must ultimately profit from a business conducted along efficient and profitable lines. The manufacturer who advertises, and speaks of its service to the community, can best measure up to this responsibility by following the business code quaintly expressed, "I be honest myself and I make the other fellow be honest."

Electrical Manufacturers and Service Men Agree on Sales Policies

Sales Policies Rather Than Service Problems Discussed. Better Service on Electrical Automotive Equipment Needed in Smaller Communities

By C. P. SHATTUCK

THAT the cost of maintaining starting, lighting and ignition systems on motor trucks and cars can be materially reduced and longer life assured, by equipping the chassis with the right size and type of units, was the keynote of the report made by the standards committee of the Automotive Electric Association at its summer meeting, at White Sulphur Springs, last month. The report of this committee, which has made an extended study of the classification of SLI units, was the leading feature of the meeting which was attended by electrical manufacturers and the board of governors of the Automotive Electric Service Association.

The findings of the standard committee are intended to assist the automotive vehicle manufacturer in the selection of the particular class of electrical equipment best suited to the individual needs of his product. The classifications made deal with standard application to 6 volt systems and the equivalent performance for systems of other voltages understood. Generators have been divided into five divisions and four sizes of starting motors have been approved.

In the report, the importance of proper battery capacity and its relation to the starting unit is emphasized. The subcommittee on standards presented a report on recommended wiring practice. Both reports were adopted with minor changes.

Fundamental Service Problems Discussed

Both reports are of particular interest to the service branch of the industry, for they point out the fundamentals of many problems and maintenance costs. The causes of many troubles are dealt with and if the recommendations made are adopted it is believed it will cost the motor truck owner less to maintain his SLI equipment than under present conditions.

Much of the business transacted at the meeting was of routine nature Various committees made reports including the service managers, advertising, legal and patent. Aside from two papers presented by guests, and their discussion, service was not featured. One evening session was to have been given over to a discussion of specialized electrical service, in an open meeting, but it developed into a closed session at the request, it is said, of the A. E. S. A. While neither association gave out any report, it is said that the problems discussed dealt with the business relations of the authorized service station and the manufacturer. Evidently satisfactory conclusions were reached.

Service was discussed at the Thursday meeting by C. P. Shattuck, field editor, Commercial Car Journal, his subject being, "What Can be Done to Promote Better and More Profitable Service." A statistical analysis was presented to show the increase in registrations and their ratio to the number of authorized stations over the preceding year. The speaker held that there were four general causes for some service stations not making money, namely: lack of merchandising ability, poor shop equipment, lack of capital and insufficient knowledge of the cost of doing business. The service station in the small places was also discussed as well as methods of appointing new stations, apportioning stocks, etc. It was pointed out that a modification of present contracts and stocks would result in increasing the number of service stations in the smaller places. Failure of many service stations to know their overhead handicaps them in giving proper service. To remedy this the development of a simple cost keeping system was proposed.

Advertising Copy Should be Specific

In his paper, "A Suggestion to Strengthen the One Weak Link in the Chain of Automotive Electrical Service," Sidney J. Stern, Automotive Merchandising, criticised the inability of the present service methods to provide the owner with adequate service and parts in the smaller places.

B. L. Shinn, special representative, National Vigilance Committee, Associated Advertising Clubs of the World, discussed advertising. He pointed out that manufacturers do not obtain full value from their advertising because they display a tendency to say and do the same thing as their competitors and because general and not specific statements are made about their product. Relative to advertising copy Mr. Shinn said: "Make your copy clear as regards guarantees by stating every condition and don't run the chance of losing your **customer's confidence.** While you are doing this and fortifying your own standing before the public, you will be curbing to no small degree the unscrupulous advertiser who seeks to use a guarantee as a means of stimulating the sale of an inferior product."

The North East Window Sign

North East Service Inc., to assure buyers of the genuine character of their purchase is supplementing the use of distinctive yellow boxes for packing its parts with a window sign for Authorized Service Stations and those shops which handle Genuine North East Service Parts. It is transparent, and in three colors, black, yellow and red.

Headlight Illumination Discussed

The A. E. S. A. board of governors submitted a plan which is believed will simplify the method of contact between the manufacturers and their representatives and the service station men, as well as effect economy of time. It is proposed to schedule the week at the Chicago show so that contact can be made without loss of time by all concerned. It is also proposed that a manufacturer or his representative give a ten minute talk on service at the meeting of the A. E. S. A. Committees of the association and A. E. A. will confer on the schedule.

As the A. E. A. has been endeavoring to bring about greater efficiency from lamp bulbs, representatives of the bulb manufacturers were invited to attend the sessions. Proper illumination by headlights was well discussed. The bulb makers pointed out that the design voltage had in some instances been raised from 6.35 to 6.5, also that longer and more satisfactory life could be expected of bulbs. The lamp representatives also held that there were many variables in production. As a result of the discussion it was voted that the standards committee of the A. E. A. work with a similar body of the lamp makers.

Among the new members elected to the A. E. A. were lamp makers who were designated by the representatives, the interests being the General Electric Company, National Lamp Works, Edison Lamp Works and the Westinghouse Lamp Co.

A resolution of condolence was adopted on the death of John W. Tracy, and copies sent to Mrs. Tracy and the North East Electric Company.

The meetings were presided over by A. D. T. Libby, president, and were well attended by class A and B members. There will be a session of the executive committee at Cleveland on Nov. 12.

"Common Sense and Hard Work"

Brought Sales, Says a Peekskill Light-Truck Salesman

By C. S. PERRIE

THE passenger car dealer handling light capacity trucks is frequently criticised for his lack of effort in merchandising the truck end of his business. The term "order taker" is usually applied because he is supposed to grab off an order when it is thrust upon him. The salesmen employed by those dealers are said to naturally follow the line of least resistance—and sell passenger cars. But there are plenty of exceptions, otherwise the number of light capacity trucks in use would not be as great as it is. Here's an example of two young men, who are handling a well-known make of passenger car and delivery truck and they are making good. It is interesting to note that **49 per cent** of the sales they made in 1923 was represented in **trucks.** They expect this year's record to be even better.

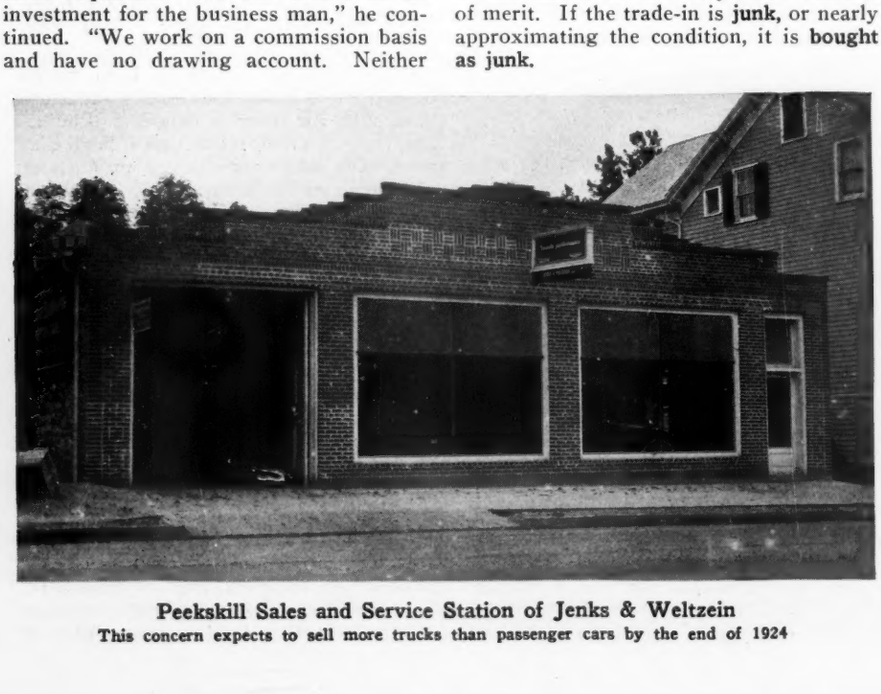
The main establishment of Jenks and Weltzein, Inc., is at Peekskill, N. Y., with a branch at Ossining. A. S. Jenks handles the Peekskill end and his partner the branch. There are two salesmen at either place and they are not specialists in passenger car or truck sales—they sell both. Furthermore, they are really enthusiastic on selling trucks. These men were not taken from some other dealer's establishment but were men selected from other industries. They were trained by Mr. Weltzein, who was a wholesale man for a New York City distributor some years ago.

One of the salesmen when questioned as to the qualifications he thinks most important in selling trucks, replied, that "common sense and hard work are the chief requisites. We sell trucks as an investment for the business man," he continued. "We work on a commission basis and have no drawing account. Neither are we supplied with a list of prospects nor aided by the sales manager to close the deal. We employ the old-fashioned but highly successful method of canvassing. Every business concern is considered a prospect and gone after on that basis."

WE WORK—
On commission without a drawing account.
Without a supplied list of prospects.
Without managerial aid.
On the basis that every concern is a prospect.

The territory covered has a population of approximately 35,000 with very few industries. The class of prospects are mostly retail tradesmen. The volume of business is, therefore, confined to one truck sales, with repeats derived from satisfied users.

No unusual methods are employed in sales or service unless "selling transportation" can be termed unusual. The method of handling the trade-in does not materially assist in sales because whenever a prospect has something to trade-in, **it is bought right.** The appraisal is made honestly and takes into consideration **the cost of reconditioning,** for it is the rule of the house to sell only used vehicles of merit. If the trade-in is **junk,** or nearly approximating the condition, it is **bought as junk.**



Peekskill Sales and Service Station of Jenks & Weltzein
This concern expects to sell more trucks than passenger cars by the end of 1924

When so purchased the chassis has some value, for there are always owners who want a certain part or unit. These are told that if they wish the part they can dig it out for themselves. But they are informed that it is a used part and they must accept it at its face value. As a rule the net on such transactions is satisfactory although an effort is made to sell a new part.

Trade-in Not a Problem

The salesmen meet with competition in the trade-in market, but they know **what they can offer** and no effort is made to coax the sales manager to better it. Rather an effort is made to show the prospect in dollars and cents the better investment angle and this proves successful—if the prospect is a business man.

An interesting case was recited by one of the salesmen. A business man operating a fleet of 10 trucks of a popular make was approached. He knew operating and maintenance costs and told the salesman his truck could not be run as cheaply. Cost figures were compared after the prospect had learned at a convention of the costs of the salesman's product. There was a differential of over three cents per mile in favor of the salesmen's product. The prospect was sold but he held out for a big allowance—which he **did not get.** He has not bought yet but he will for each of his present cars run up big mileage per month and the **figures are selling him.** The instance is cited to show that sales involving a trade-in **are not made unless at a profit.**

The number of trade-ins allowed is one per make. This is virtually a stop order but does not prevent a sale because the trade-in is sold for the prospect and a charge of 20 per cent is made for selling. Of course the average owner values his property higher than the market price, but selling on facts and figures solves the problem. In some instances a better price is obtained. For example, one owner thought he should get $1000 but he was shown that the used market value was only $780. The truck was disposed of and with commission deducted netted the owner $940 and it was sold inside of three days.

The fundamentals of the selling plan is a good product plus honest representation. The salesmen are trained **to relate facts only,** not to make any **indirect statements but to be honest with the prospect and customer.** He is not promised a lot of free service, in fact, the only free service is an adjustment of the brakes one week after delivery which is a good policy. After that there is a charge. About 30 per cent of the trucks sold come in regularly for an inspection and lubrication service.

An Exterior View of Jenks & Weltzein, Dodge and Graham Bros. Dealers, Ossining, N. Y.

This branch sold eighty-two per cent of the trucks that the 1923 quota of truck sales called for. The remaining eighteen per cent were sold through the Peekskill branch.

Both places carry a good line of parts and render service at reasonable prices. Many sales are made through satisfied owners, satisfied with the product and the cost of maintenance. The dealer referred to handles the Dodge passenger and commercial cars and the Graham Bros. truck. The success achieved demonstrates that price is not the determining factor in selling transportation and service, although many dealers think so.

Mr. Louttit Sees Need for Electric Truck Dealers in Small Cities

By F. ODONE

"THERE are a lot of people in Providence who would buy electric trucks if there was a local dealer and service station," said Mr. Louttit, president of the Louttit Hand Laundry and the What Cheer Laundry, Providence, R. I.

"The cost of operating electrics is very much less than on gas cars, but when an electric gets out of order, if there is no dealer in town, it must stay out of order until the user can get the necessary parts from the factory. Also, while the electric is much simpler in construction than the gas truck, fewer people understand its construction."

When asked about his own experiences with electric trucks, Mr. Louttit produced figures showing that during 1923 his 23 electric trucks averaged $17.10 per truck week as against $26.87 per truck week for gas cars. These figures include the following items:

ELECTRIC TRUCKS	GASOLINE TRUCKS
Current	Gasoline
Lubricants	Lubricants
Battery supplies	Parts
Parts	Garage payroll
Garage payroll	Garage supplies
Garage supplies	Accessories
Interest and depreciation charging machinery	Rent
Repairs charging machinery	Tires
Rent	Body repairs
Body repairs	Painting
Painting	Insurance
Insurance	Interest and depreciation
Interest and depreciation	Registration
Registration	Interest and depreciation on bodies
Interest and depreciation on bodies	

As will be noted Mr. Louttit's figures cover every item of truck cost and are therefore reliable.

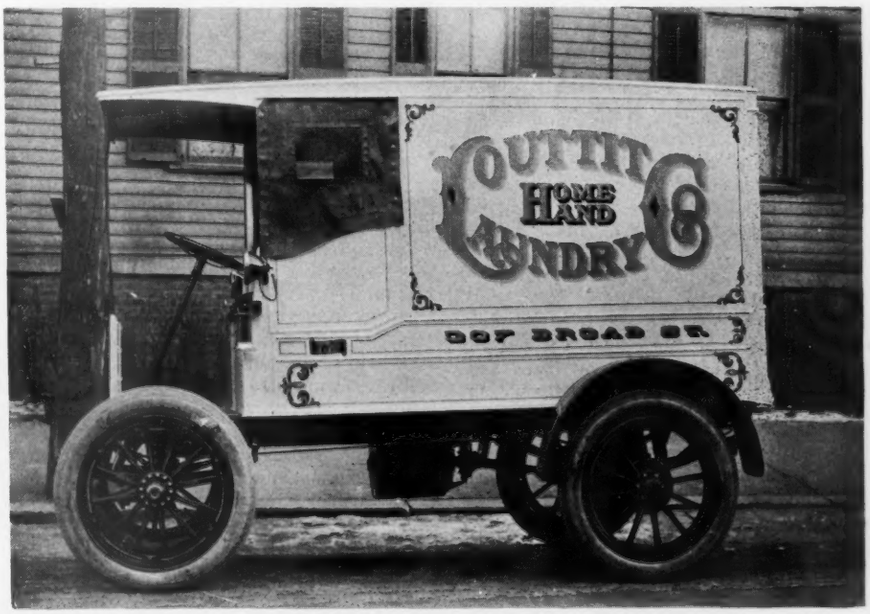
Mr. Louttit uses 23 electric trucks and 20 gas cars divided into two fleets which serve the Louttit and What Cheer Laundries. These two firms have from 7000 to 7500 customers and the vehicles make an average of 11,000 stops per week, collecting mornings and delivering afternoons. The routes run up to 125 miles in length, 21 of these, under 40 miles long being served by 23 electric trucks and 15 of them over 40 miles in length being served by 20 gas cars.

One Retained in Reserve

Mr. Louttit after eight years experience with electric trucks does not believe in ever using gas trucks in place of electric trucks as he states he would lose $10 per truck every week if he did so. So he keeps one electric truck in reserve at each laundry to take the place of trucks being repaired or painted.

He states the heavy grades, sand roads and severe snow storms which must be met around Providence and frequent stops necessary on laundry routes make operating conditions very severe. In spite of this, during the winter of 1923, only one electric out of 21 in daily operation had to be towed in.

Mr. Louttit's recommendation of electrics for short haul frequent stop routes and gas trucks for routes over 40 miles in length in general agrees with the conclusions of transportation engineers. What he says about the need of electric truck dealers is true of many cities besides Providence. The automobile dealer has a great opportunity to do profitable business by adding electrics to his gas truck line. Then he can recommend to his customers the equipment best suited to their needs, raise himself to the status of technical adviser on transportation and earn a very legitimate profit.



One of a Fleet of Laundry Trucks Used by the Louttit Hand Laundry Company

Maintenance and Operation
Feature Discussions at
S. A. E. Transportation Meeting

Lighter Bodies and Chassis Wanted. Maintenance of Brakes, Clutches and Bodies Should be Improved. Six-Wheel Chassis Predicted as Coming Thing in Buses

THE Transportation Meeting, held last month under the auspices of the S.A.E. in New York City, brought out the fact that the various transportation agencies and the executives in both the motor truck and railway fields are no longer at variance with each other, but are working hand in hand in the development of the motor truck and particularly the motor bus.

Whether the motor bus can be designed along standard lines that will meet the requirements of all operators is a question. One western operator is so thoroughly convinced that special units are necessary that he definitely predicted that the large operators would start their own assembly plants unless the present manufacturers would be willing to sell only those parts which could be used to advantage by the particular operator.

200 in Attendance

About two hundred men attended the meeting which was the second of its kind held by the society.

The question which some automotive manufacturers would like to have answered, namely, "when will trolleys pass out of the picture?" was given an airing when A. F. Masury made the statement that "in five years trolleys will not exist." He was immediately challenged by L. H. Palmer, of the Baltimore Traction Co., who said that he did not think that Mr. Masury meant exactly what he said, or that the trolley companies are without funds or ability to raise them. Mr. Palmer then proceeded to show that the traction companies are in better financial shape than they had been for many years.

He objected to any comparisons which are made between short haul bus service with that carried annually on long haul suburban service by an electric railroad. In so far as raising money was concerned, he stated, that certain traction lines had sold six per cent securities recently which he thought was better than some truck manufacturers could do.

Maii tenance and Time Involved

The importance of maintenance and the time involved in changing or repairing units in the vehicles was stressed considerably by various speakers. In connection with this point Mr. V. E. Keenan stated: "It is quite reasonable to believe that engineers designing equipment in the future will give more attention to the cost of maintenance than has been apparent in the past. This point I cannot stress too greatly. As a result of our experience, we find vast differences in the cost of operating different makes of equipment. Externally and theoretically there should be no reason for this differential.

"Although we do not advocate a complete abandoning of existing units by the various manufacturers, we suggest that more thought and attention be given to the following points:

"1—Let the transportation industry have vehicles that are simpler to maintain, that is, units that can truly be classed as accessible so that the cost of operation may be reduced.

"2—Let the transportation industry operate larger vehicles, which will give an opportunity for earning greater profits."

A Case of Selling Transportation

That many vehicles now in operation have been sold without proper consideration of their fitness for the work involved has been apparent for some time and on this score J. B. Stewart, Jr., made some pertinent remarks:

"My experience with the automotive industry has been that the entire effort thus far expended has been concentrated on the actual sale by salesmen, **and that little or no effort has been put forth to study the conditions under which the motor bus is to operate.** I have heard of motor buses being sold for use in inter-city service in which a speed of 30 m.p.h. had to be maintained for several hours, with a rear axle ratio of 7.5 to 1.0. Anyone who has given the subject consideration will readily see that an engine would not long survive under the vibration that would be set-up at the engine speed necessary to operate the motor bus."

Mr. Stewart also pointed out that many operators are unreasonable in their demands, making the manufacturer's lot a most difficult one. "It is practically impossible to build a chassis that will carry a 25-passenger motor bus," stated Stewart, "with a capacity load at a speed of from 30 to 45 m.p.h. and still be able to pull the same load up a 5 per cent grade a mile long in high gear. If the engine were large enough to handle the motor bus under such conditions, it would be extemely heavy and probably would not be economical in the consumption of gasoline. If the rear axle ratio were high enough to allow a normal size engine to comply with the grade requirement, it would cause the engine to operate at an excessive speed on the level.

"Our experience seems to indicate that the best results can be obtained by using a rear axle ratio that will allow the engine to operate in high gear at its most efficient and economical speed for the greater part of the route and drop back into a lower gear when it is necessary to traverse the small portion of the route located on grades."

Study of Brake Rigging

Mr. Stewart brought out a very interesting point in regard to brake action and the necessity of making allowance for varying load conditions. "Although we were having trouble with the brakes on a certain make of chassis, the manufacturer could not understand why we should be so troubled, as his commercial cars had always given entire satisfaction in this respect.

"The particular line on which this motor bus was operated was about 2 miles long, the schedule requiring that it be traversed in 20 min. It was found that the motor bus was averaging 15 stops each way, or 7.5 stops per mile, some of which were made on a 2 per cent descending grade. After this investigation this particular company redesigned the brake rigging and no further trouble has been experienced.

"The varying load conditions experienced in motor bus operation must also be kept in mind by the designer of brake rigging to the end that as the load is added, the brakes will not tighten or loosen, as the case may be, because of the eccentric action of the brake pull-rods around the rear axle as the chassis frame rises or lowers under varying conditions of load.

Repairs and Replacements

"When there is occasion for repairs and replacements of parts," continued Mr. Stewart, "the maintenance foreman and his mechanics find that they lose much time on account of having to remove many other parts to get at the part to be repaired or replaced. For instance, take

Development in Street-Car Type, Single-Deck, Motorbus-Body Design

Make of Motorbus	Height of Step Above the Street, In.	Height of Floor Above the Street, In.	Head-Room at the Center, In.	Center-to-Center Spacing of Seats, In.	Knee Room, In.	Width of Seats, In.	Width of Aisle, In.	Entrance Door		Emergency Door Location	Lighting		Ventilators	
								Type	Width In.		Number of Lamps	Cp.	Number	Type
Yellow Coach	13⅜	26⅜	77	29½	.....	32	19	Jacknife	.....	Left Rear	10	21	.....	Louver
Twin City	15	24	72	31	.....	34, 35	.....	Two Doors	28, 31	Left of Driver	6	.....	5	Perf
Royal Coach	14½	25½	76	.....	10	34	16	Inward Folding	.....	Left Rear	8	21	.....	N. L.
Eckland	16½	32	64	30	.....	34	15	Double Swinging	28	Left Front	6	.....	.....	Monitor
Moreland	13	24	72	28	.....	34	18	Folding	30	Left Rear	10	12	2	.....
Kastory	17	30	72	29	.....	.....	15	Double Folding	28	Left Rear	7, 6-In.	.....	.....	N. L.
Schaefer	17	34	75	30	.....	34	13*	Center Divided	27	Rear End	6	21	.....	N. L.
Whitfield	14 to 15	28 to 31	70 to 74	30	.....	32	14	Double Leaf	30	Left Rear	6	21	.....	N. L.
Wier Co.	14	.....	74	.....	13½	32	16	Folding	24	Left Rear	8	4	.....	.....
Fageol	15	22	72	.....	14	32	15	Folding	29	Left of Driver	8	4	.....	N. L.
Freemont	15	.....	74	32	.....	34	16	Folding	32	Left Rear	12	4	.....	N. L.
Weatherproof	9 to 15	20 to 26	74	31	.....	32	17	Folding	27¾	Rear End	5	.....	2	N. L.
International Motor	18¼	27⅜	73¼	.....	8	33¼	17	Folding	26	Left Rear	6	21	3	N. L.
Wentworth & Irwin	16	30	75	.....	15	34	16	Folding	24	Rear End	7	8	3	.....
Schubert	13	26	70 to 76	29 to 35	.....	32 to 35	17*	Folding	28	Rear End	6	21	3	N. L.
Lang	17	30	74	27 to 30	.....	32	14½	Folding	30	Left Rear	6	21	3	.....
Kuhlman	16	29	75	.....	11	33	18	Folding	29	Left Rear	7	21	3	N. L.

* This dimension is taken at the level of the seat cushion.

rear wheel brake bands. At present, it is a rather extended task necessitating the removal of the wheel to get at the brake band. It has always seemed to me that some scheme could be worked out for the rear-wheel brakes similar to that of the propeller shaft brake shoes, so that the shoes having worn-out linings could be removed and a new set installed without removing the wheels."

Use of Anti-Skid Devices

The use of anti-skid chains has not been completely satisfactory due to the fact that so much time, a matter of from 20 to 30 min., is wasted in their application, often involving the loosening of all nuts holding the wheels in place and allowing the wheels to drop apart before the chains could be applied. Mr. Stewart claims to have solved this problem by the use of a newly developed reinforced cross-link with a smaller tire than usual. In explaining this procedure, Mr. Stewart stated:

"We found that this cross-link was not made larger than 5 in. in size, so, as an experiment more than anything else, one bus was equipped with 34 by 5 in. tires. It was found that the single 34 by 5-in. de luxe chain could be applied to this tire without removing or even loosening the wheel; in fact, all that it is necessary to do is to spread the chain out on the pavement, run the wheels onto the chain and fasten the catches, the entire transaction not consuming more than from 3 to 5 min.

"The 34 by 5-in. tire endured very well during the winter months, even though severely overloaded, but during the summer months it would not give the mileage, so that the present practice is to use 34 by 5-in. tires during the winter months and change to 36 by 6 tires during the summer."

Motor Bus Body Design

In his paper on "Developments in Motor Bus Body Design," Mr. Bersie stated that the street-car type, or the pay-as-you-enter, motor bus is in the ascendancy. Approximately 70 per cent of the new motor buses placed in service during the year were of the street car type. The sedan or de luxe type and the double-deck vehicles will be largely used in boulevard or inter-city service.

Mr. Bersie stressed on the value of an attractive, substantial, safe-looking motor bus as an appeal to the public.

"The color trend," said Mr. Bersie, is somewhat toward the brighter hues in place of the somber colors that were prevalent a year ago. Because the motor bus operates on a regular schedule, the bright colors that are required for the taxicab are not necessary; however, certain shades of dark brown, red, green or blue are admirably suited to motor bus requirements.

"An excellent arrangement of the Chicago Motor Coach Co. is the use of distinguishing colors for motor buses serving different sections of the city; brown for the North, green for the West and red for the South sides."

Getting the Owner's Viewpoint

Need for closer study of the user's viewpoint was urged by some speakers who also pointed out that it is unwise to attempt to force the sale of a vehicle not well suited to a given service simply to facilitate quantity manufacture of a single model. On the other hand it was pointed out that changes in chassis made in response to the ideas advanced by individual purchasers are exceedingly difficult from the manufacturing standpoint. According to A. J. Scaife, of the White Motor Co., about the best the manufacturer can do

(*Continued on page 54*)

Among the Speakers Present

V. E. Keenan

Superintendent, bus division, United Electric Railways Co. wants simpler and standard bus equipment.

H. G. Bersie

Engineer, Haskelite Mfg. Co. stated in his talk on body design that the p. a. y. e. type was in ascendency.

Francis W. Davis

Consulting engineer says that accurate information on the useful life of non-wearing parts is wanted.

H. W. Howard

Transport engineer, General Motors Truck Co., advised the use of trailers where time is lost.

A. B. C. B. Exhibit and Convention to Feature Motor Transportation

Increasing Interest Reflected in the Major Attention to be Given Motor Transport at Louisville, Ky., November 10-14

RECOGNITION of motor transportation as a vital and necessary adjunct to every industrial activity is plainly evidenced no matter where we look. Wherever transportation needs are required there is found motorization. Of course, there are examples where motorization was but recently inaugurated, but the big issue is the fact that once started, no matter on how small a scale, truck transportation with its inherent economies will eventually dominate. Motorization once recognized, the story has but one conclusion, complete motorization.

Transport Featured Everywhere

Another barometer of universal acceptance of the motor truck as the only sound method of accomodating all transportation needs is reflected by the large percentage of motor truck exhibits to be found in the conventions and exhibits of industries not allied to the automotive industry. These conventions annually show an increase of truck exhibits. Moreover, these exhibits are featured as one of the special attractions, which all goes to indicate the value attached by the various industries to motor transport.

The American Bottlers of Carbonated Beverages convention and exposition to be held at Louisville, Ky., Nov. 10 to 14, for example, intends to devote special attention to this angle. This association presents the interesting fact that more than 75 per cent of its industry is motorized. Motor truck manufacturers not already represented at this convention should avail themselves of the opportunity of representation there, particularly in view of the 5000 attendance estimated to be there.

After October 30th all correspondence should be forwarded to the attention of Chairman James Vernor, Jr., of the Convention and Exposition Department, American Bottlers of Carbonated Beverages, Jefferson County Armory, Louisville, Ky. The headquarters prior to that date are 231-237 Woodward Ave., Detroit, Mich.

While essentially an exposition of and for the bottled carbonated beverage industry, it will be one of the largest and most varied displays of industrial machinery and supplies ever assembled.

Trade problems and important questions of policy are scheduled for discussion at the convention sessions. Speakers of national note will talk on food production topics in addition to the addresses of officials of the association and other leaders in the bottled carbonated beverage industry.

MOTOR TRUCK AND BODY EXHIBITORS

Federal Motor Truck Co.
General Motor Truck Co.
Graham Brothers Truck Co.
International Harvester Co.
Mack Truck Co.
Schacht Motor Truck Co.
Service Motors, Inc.
White Truck Co.
Garford Motor Truck Co.
Highland Body Mfg. Co.
Republic Motor Truck Co.

Elaborate Entertainment

An elaborate entertainment program, with special features for the ladies, has been arranged by the Louisville committees co-operating with the A. B. C. B. officials. This program includes an excursion to famous Mammoth Cave.

The big drill hall of the Jefferson County Armory, measuring 196 by 270 feet and unobstructed by pillar or post, will be used. The floor plan calls for 263 exhibit spaces, of which all but a few already have been reserved.

More than a score of distinct industries catering to the bottling trade will have booths at exposition, including manufacturers of motor trucks, bodies and parts.

Immense Jefferson County Armory Where the Convention Will be Held

The exposition rules and regulations insure a uniformity of style and decorations of the booths which make it certain no exhibitor will be placed at a disadvantage. An elaborate water and drainage system has been installed. Ample electric light connections also are available throughout the hall, and gas can be supplied where needed. Another feature which will be much appreciated by exhibitors is that there are two entrances in the rear of the hall, of sufficient size so that in bringing in machinery and other bulky exhibits, hoisting up steps, or "knocking down," will not be necessary.

Strong and Capacious

The Armory has ample structural strength, the floor being rated with a dead load capacity of 150 pounds per square foot, with a safety factor of four and is of maple laid over concrete.

A most pretentious and beautiful decorative scheme for the exposition has been worked out by Joseph T. Griffin, of Louisville, and George Fern of Cincinnati.

At the far end of the hall, opposite the main entrance to the Armory, the band stand, from which Al Sweet's Famous Chicago Cadets, a band and a glee club combined, will give concerts during the exposition, is built into a balcony which encircles the hall at a height of 12 feet. Mr. Griffin has conceived a stupendous decorative scheme, made practicable by this arrangement of the balcony and bandstand, which will make the exhibit floor seem as a beautiful valley in Glacier National Park.

The fact that the convention sessions will be held under the same roof as the exposition—in a large hall over the main lobby—will work to the advantage of both the delegates and the exhibitors. It will mean little loss of time in going from the convention sessions to the exposition and insures a maximum attendance at both.

Elaborate preparations have been made for the care, comfort and entertainment of all attending the great gathering.

All requests for hotel reservations as well as exhibit space should be made to Mr. James Vernor, Jr. Certificates necessary to obtain the reduced railroad rates are being issued by Secretary Junior Owens at the A. B. C. B. National Headquarters, 726-729 Bond Building, Washington, D. C.

You Cannot Operate the

Flat-Rate System

Unless You KNOW the Cost and Overhead

For Application Two Essentials Are Necessary. First, an Analysis of Cost Plus Overhead; Second, Proper Introduction of the System Into the Shop

By C. P. SHATTUCK*

OLD MAN OVERHEAD is a very elusive gentleman. He is most active for he works all the time—Sundays and holidays included. He is tireless in his efforts to keep the expense ball rolling. He has been very active in retarding progress in service because he uses red ink by the wholesale. Furthermore, he is the alibi for the dealer who refuses to believe that service can be made profitable.

No dealer or service station should attempt a flat rate or piece work system without **an accurate knowledge** of cost plus overhead of any given service operation. To attempt to introduce either of these systems without real figures generally leads to complications ending in the red ink column. Two essentials are necessary. First an analysis of costs plus overhead must be made and, second, the system must be properly introduced in the shop.

Analyze Overhead

Before proceeding with suggestions for laying out the flat rate or piece work system the subject of overhead must be analyzed. If you are interested in giving better service, at less cost to your owners, and in making the shop pay, you must get down to brass tacks on your overhead.

Table of Arbitrary Expense Figures

	Year	Month
Rent or Lease (75% bldg.)	$900.00	$75.00
Insurance	50.00	4.17
Heat	84.00	7.00
Light, Power	120.00	10.00
Telephone	60.00	5.00
Telegrams	12.00	1.00
Stationery, Printing	48.00	4.00
Advertising	36.00	3.00
Donations	10.00	.84
Express, Freight, P. Post	30.00	2.50
Postage	15.00	1.25
Legal	50.00	4.17
Interest on Borrowed $100	6.00	.50
Improvements	25.00	2.09
Depreciation fixtures, etc.	25.00	2.09
Shop Supplies, not charged	15.00	1.25
Miscellaneous	25.00	2.09
Come-Back Jobs, Labor	50.00	4.19
Come-Back Jobs, Parts	5.00	.42
Small Tool Replacements	25.00	2.09
Depreciation Machinery	250.00	20.84
Free Service, 1 Hr. per Day	218.40	18.20
Salaries	1300.00	108.34
Service or Tow Truck	149.80	12.49
Total	$3509.20	$292.44

*This is the fourth of a series of articles on service by Mr. Shattuck, dealing with the installation of flat-rate and piece-work and selling the systems to the truck owner. The fifth will appear in an early issue.—Editor.

And after you have Old Man Overhead in the corner he must be watched lest he escape.

The following suggestions are made for arriving at the cost of overhead and its application on the hour and operation basis. A table of arbitrary expense figures is appended as an example.

Items of Overhead

The first item is the rent of the building or shop. Assuming that 75 per cent of the floor space is occupied by the service department, consequently, 75 per cent of the rent of $1200 a year is charged to the service department. The balance may be occupied by the office, salesroom, parts department, etc., but none of these have anything to do with the overhead of the service department. A very simple method of arriving at the space and rental, is to ascertain the number of square feet of floor space in the building and charge to the service department only its share. However, if any part of this department is used to store new trucks or trade-ins the sales department should be charged a rental on the square foot basis for the time said vehicles occupy space. Many truck dealers use the service space for storage but never give the shop credit. This is wrong from an overhead basis. If the service department used any part of the other departments for storage there would be a protest. If there were not space in the service department, and the vehicles were stored in another building, the dealer would have to pay, so why charge it to the service department?

All items shown in the table are figured on the 75 per cent basis such as Heat, Light, Power, Telephone, Insurance, etc. While it is true a closer division could be made it would involve too much detail; for example, in the matter of "donations." The head of the service department might deem it good policy to subscribe to some local function that would be good advertising for the truck or service.

Bad Bills Create Losses

The legal item is quite important, as the expenses for collecting "bad bills" must be paid for. Some bills are never collected so under the Legal head may be added the "Bad Bill" loss. Two accounts are to be preferred. The amount of money borrowed is small, but it serves to show an interest item on the note. Office fixtures in the service manager's room depreciate and in this case the new value is set at $100. The depreciation is figured at 25 per cent per year and in four years the equipment is charged off. It will have some value after this, of course, but it is an asset. Interest on the capital invested is not figured but it can be, and should be, when known.

Shop supplies, not charged or sold, are those items for which there is no charge. There may be cotter pins, lock washers, soap for the mechanics, sawdust, emery paper, brushes, shellac, blue, gasket material, sand, solder, flux, wire and the many small items that cost but a few cents but which run into real money in a year. The Miscellaneous Account is for small items also.

Replacements Cost Money

Broken drills, files, taps and other small tools must be replaced from time to time. This expense should be placed under the head of Small Tool Replacements. The investment in machinery and shop equipment is placed at $1,000 and charged off at 25 per cent per year; at the end of four years it becomes an asset.

Some charge must be made for all equipment. If $60 be paid for an electric drill the money must come from somewhere and the cost is an overhead expense until charged off. The money for new shop equipment should come from the gross profit but irrespective of the method employed the expense, as well as any replacement of parts or repairs, must be charged somewhere. **The truck owner does not buy the new equipment other** than in the **profits** the shop **should make.**

The cost of all come-back jobs and parts used should be charged to overhead. The amount set down is $55 for a year for both items. It may appear large, but it is conservative. This item is separate from the Free Service charge which is set down at $211.40 a year. This also may appear too large, but if the minutes spent each day and week by the mechanics doing some little job such as tuning car-

buretor, filling a radiator, inflating a tire, tightening a loose nut or bolt, etc., are kept account of it will be found that they run into many hours which mean many dollars—overhead. Who pays the mechanics?

The "Salaries" item is included in the table for the benefit of the small shop where the boss also works. Let us assume he draws $50 a week but does not work all the time because he waits on the owners, etc. In the table it is figured that 50 per cent of his time is productive, that is, the shop gets paid for his labor. The non-productive time is overhead. Where any employee functions for both the service and sales departments, a division should be made.

The Wrecker is figured to have cost $300, it being a used truck so only 20 per cent per year is charged to depreciation. The license fee is placed at $12 repairs and parts at $25, gas and oil and tires at $52.80. These figures, as has been stated, are arbitrary and employed to show the items involved in overhead.

The table on overhead shows that it is $3509.20 per year or $292.44 the month. Figured on the day basis, including Sundays and holidays—for overhead keeps right on the job—the cost per day or overhead is $10.06. The difference between productive and non-productive time was discussed in the previous article.

Labor Has Definite Cost

One of the great reasons for failure in service is that no consideration is taken of non-productive time. It may appear difficult to ascertain the amount but it must be done to be successful in service. If more shops really knew the cost of non-productive time or labor there would be a general revision of the free service policies by all concerned.

In the September issue of the Commercial Car Journal a table was prepared and figures based on weekly labor rates from $20 to $50 inclusive, showing the cost per hours (48 and 38 hours per week). According to these figures the cost of one mechanic per hour on a 48 hour week basis, at $20 per week, is .417. With non-productive time of 12 hours, the cost would be .555 per hour.

But this is not the total cost, for we have the overhead per hour to add. In a one-man shop with the overhead at $10.06 the day, and allowing seven days the week, the overhead would be $1.25 the hour. If this same shop operates six days a week the overhead per hour for a 48 hour week would be $1.67 per hour or about .42 greater.

Now let's see what the definite cost per hour for a one-man shop operating on a 48 hour weekly basis, having 25 per cent non-productive time or 36 actual producing hours would be. See Table A.

Employing the overhead figure which is an arbitrary one, and adding the cost of labor per hour, the total cost per hour for a 48 hour week is rather startling. When a 36 hour week is considered it is even more so. Of course in a one-man shop the computation would be different. There the overhead included the boss who worked 50 per cent of his time. Now let us see what the actual labor cost per hour will be with more than one man working on a wage basis of $25 the week. See Table B.

Obviously as the number of men employed is increased the actual labor cost per hour (including wages and overhead) is reduced. On the other hand, the more men employed the greater the idle time factor. With more than 25 per cent idle or non-productive time the cost per labor hour will materially increase, in proportion to the idle time. Similarly, the cost per hour for wages from $20 to $50 can be calculated by using the method shown above.

One Man Weekly Wage	Cost per hour 48-hour basis	Cost per hour 36-hour basis
$20	$0.417	$0.555
Overhead	1.676	1.676
	$2.093	$2.231
$25	$0.520	$0.694
Overhead	1.676	1.676
	$2.196	$2.370
$35	$0.729	$0.972
Overhead	1.676	1.676
	$2.405	$2.648
$50	$1.041	$1.388
Overhead	1.676	1.676
	$2.717	$3.064

Table A

ONE MAN			
	Hour Cost 48 Hours		Hour Cost 36 Hours
Labor	$0.520	Labor	$0.694
Overhead	1.676	Overhead	1.676
	$2.196		$2.370
THREE MEN			
Labor	$1.560	Labor	$2.082
Overhead	1.676	Overhead	1.676
	$3.236		$3.758
Per Hour	1.079	Per Hour	1.252
SIX MEN			
Labor	$3.120	Labor	$4.164
Overhead	1.676	Overhead	1.676
	$4.796		$5.840
Per Hour	.799	Per Hour	.973

Table B

Gross and Net Profits

Now let it be assumed that the service station in question is a three-man shop paying each mechanic $25 the week on a 48 hour basis, using the overhead given in the tables. The boss draws $50 a week salary but produces but half his time. If the three mechanics produced 48 hours each, the actual cost per hour (wages and overhead) is $1.079 and the customer is charged on an hourly basis of $1.25 there would be a NET PROFIT of 17 cents per hour or $24.48 profit in a week of 48 productive hours.

With three men working 48 hours and making a profit of 17 cents per hour per man we have 3 x .17 x 48, which equals $24.48. But the boss working half time produces 24 hours receiving $1.25 per hour, the selling cost of service. (24 hrs. at $1.25 an hour equals $30 income). This is not net profit but gross profit, for it must be remembered that although the boss was paid $50 a week, half his salary is charged up in the salary column. The other $25 must therefore be deducted from his earnings, $30, which leaves a net profit of $5. For convenience the overhead per hour has already been charged to the men and does not need to be figured in the boss's cost. Of course an expert accountant would not employ this system but it makes the calculation much simpler.

The total NET PROFIT for the shop is, therefore, $29.48 but the boss gets $50 the week, so his remuneration must be $79.48. If he did not produce, the actual profits of the shop would be nil, that is to say, the three men would earn $24.48 to pay the boss the $25 part of his salary which has not been charged to overhead. As readily can be seen the loss would be the difference between $25 and $24.48, which would amount to 52 cents.

Now, if the three men produce but 36 hours a week of 48, the loss would be even greater. The income of the boss would be 36 x $1.25, which is $48 for the

(*Continued on page 56*)

THE MOTOR COACH

Its Past, Present and Possible Future

By F. R. FAGEOL, Fageol Motors Company

SINCE the motor coach has definitely proved its value, both as an urban and interurban transportation vehicle, it is perhaps safe to say that nothing can happen which will seriously interfere with its adoption and growth. However, without question the greatest danger confronting the future of the motor bus today is or will be blind agitation for unreasonable and unintelligent laws taxing it and regulating its operation. As previously indicated, however, such a course can only hamper and retard, but in the final analysis cannot and will not defeat the real future of the motor bus.

Equitable Treatment

I believe I am safe in saying that there is no one of responsibility connected with the motor bus industry, either operator or manufacturer, who has any desire or intent to have the motor bus industry, either manufacturing or operating, escape one single penny of just taxation, nor, on the other hand, do we believe that any of the opponents of motor bus operations desire unjust taxation. Really, the only difference between those favorable and those opposed to motor bus operation lies in the fact that those interested in and those favorable to motor bus operations, on account of close contact and study, know much more about motor bus operation and therefore are in much better position to intelligently judge the true situation than are those who are on the outside with other interests and merely looking in and who can naturally only see that part of motor bus operation which might affect their particular problem.

Road Taxation

Unfortunately, through clever propoganda, a great many people have been influenced to believe that the motor bus does not pay anything like a fair proportion of taxes. Nothing could be further from the truth. You will hear people say, "Why, the State builds them a road to run on and they do not pay anything for the use of." Such a statement is only partly true. The real truth is that the bus operator does not charge his passengers anything for the use of this highway. Therefore, how can he pay for something he does not charge for?

A motor bus operator really charges for the vehicle, its depreciation, its tires, its gasoline, its mechanical maintenance, its drivers, the men who serve in the waiting rooms, in the shops, and for general management, and I have yet to analyze a motor bus operator's statement wherein he showed as an operating cost item a figure to cover cost of the highways over which he operates, except the entry to cover taxes.

Probably the most fair means of taxation for all automotive vehicles would be a gasoline tax sufficiently high to pay for the maintenance and administration of the highway. **This gasoline tax to be in lieu of all other taxation.** The next most equitable tax for motor coach operation would undoubtedly be a percentage of the gross receipts in lieu of all other taxation. It is a fact that today the average motor bus operaor throughout the United Sates pays a tax of from seven to twelve per cent on the ad valorem value of the equipment, whereas the average tax which prevails on practically all property (and I believe you can include all rail, both electric and steam in this) is probably not in excess of two to two and three quarters per cent ad valorem value, so that the general belief that the motor bus of today is escaping just taxation is certainly all wrong.

Motor Bus More Economical

From the standpoint of road or highway wear and tear per passenger carried, the motor bus is a much more economic unit than is the private automobile. For example, every time a private automobile goes on the street or highway, there is a load factor of approximately 2000 pounds per passenger on the highway, whereas with the present modern motor coach there is an approximate load factor of 600 pounds per passenger exerted on the highway. Therefore, it would seem rather unjust if we were to ask citizens to pay a special tax because they wanted to leave their own automobiles in their garages and ride a motor coach, whereas, no one would question their right to take their own automobiles out and drive 24 hours a day every day in the year, bent on any mission which might suit their fancy.

It you will analyze any electric, or steam railroad company's operating cost, you will find they have set up and charged liberally therein so much per operating mile to cover the cost of their roadbed, as well as all the other items which the motor bus operator charges in setting up his operating cost. In the final analysis both the rail operator and the motor bus operator must adjust their fares so that they will pay a fair return on the investment over and above the operating cost. Every time you buy a steam railroad ticket or an electric ticket, a certain amount of the fare paid goes toward maintaining the rails, and this is as it should be. The cost has to come from somewhere, and in the final analysis the parties benefited—the public—must pay for everything, there being no other source of wealth from which such charges can equitably come.

Consolidation vs. Independents

Motor coach operation is rapidly assuming the role of a public utility, and this is as it should be. The final result of this is undoubtedly going to be one of two things—consolidation of the present lines of independent operators into companies, or the gradual passing of small independent operators who will be absorbed or taken over by the present large electric and steam transportation companies, and already the latter seems to be developing very rapidly.

It is as yet a little early in the industry to definitely predict just what form and price the motor coaches are going to assume. However, the past two years have rather definitely demonstrated that the low swung, wide tread, high powered coach is probably going to prevail for urban and interurban work. The present standard of sizes seem to be approximately 60 to 65 for double deckers, 29 to 31 for single deckers and 22 to 25 for interurban equipment. Time and experience alone will teach us whether those seating capacities should be raised or lowered. Personally, I believe that the double decker has wonderful possibilities for suburban, and possibly in certain congested areas, interurban service up to a hundred miles distance. Hundred horse power motors and vehicles capable of seating fifty people, and making speeds up to 40 and 45 miles per hour comfortably are going to become popular and I further believe that the average speed for motor coach operations is going to gradually come up so that in a relatively short time it will be practically possible to duplicate local steam railroad schedules and do so most safely.

The Future Patron of the Bus

We believe that the future motor coach rider will come mainly from the present day automobile rider and not so much the man who rides the rail lines. Frankly, if the motor coach had to depend on what it could take away from the present day electric or steam railroad riders, we would not think much of its future. In order to fully appreciate this, you need only reflect back and see where the present automobile riders have come from. Certainly they do not represent to any very large extent a drain on the patronage of the steam or electric railways. Most

of the automobile miles are driven because economic or "convenience" considerations make them worth while—most of them are **not** miles that would be traveled on the railroad if there were no other way to go. **The unexpressed demand for transportation seems to be as endless as the waters of the ocean. Any development of transportation facilities which will increase the scope of social or commercial activity unlocks more of the hidden demand.**

During my experience in traveling throughout the United States, checking up and investigating motor coach operations, many interesting phases have been presented. One of the most interesting is this—wherever there are large numbers of people, **increased service seems to create increased travel.** For example. I have seen lines where schedules were infrequent and where operation was practically a failure. We have seen the service increased to one coach per hour and become profitable, increased to a coach every half hour and become more profitable, and finally increased to three coaches. per hour, when it became a veritable gold mine. **This clearly demonstrates that where there are people there is an underlying need for transportation, and as transportation facilities become more convenient as regards time, place or route, this need is translated into patronage.**

In the final analysis it really matters little whether or not motor bus transportation can be offered at a price in excess of present rail transportation or at a price below. It also really matters little whether or not the taxes happen to be higher or lower so long as they are just and equitable. The real thing which creates motor bus riders is an unanalyzed psychology of the people, desiring and demanding a free, unrestricted, self-propelled vehicle running on rubber and air and going where they want to go, when they want to go and as they want to go.

Today in the State of California there is perhaps not a city or town of 500 population or over that is not served by interurban motor bus transportation. What has already happened in California is absolutely certain to happen in all other states of the Union, because the desires of the people in Ohio, Maine and Florida are very little different from the desires of the people in California.

A glance at a map of the United States, outlining the proposed Federal Aid Highway System, shows that within a short period of years every county seat in every state will have an improved highway connecting it with every other county seat. Our experience shows that wherever there are people, and good roads, there are bus riders. Does the future of the motor bus need any further brief?

United Motors Announce Two New Models

TWO new speed trucks with capacities of 1¼ and 2 tons, respectively, have been brought out by the United Motors Products Co., Grand Rapids, Mich. The new models are designed particularly for rapid transportation service and have a speed rating of 35 m. p. h. The wheelbases are 131 and 150 inches, respectively.

Both models use a 4 x 5 Hercules Model 0X, 4-cyl. engine, which is said to develop 39 h. p. at 1600 r. p. m. Pressure lubrication is provided at the three main bearings and at the connecting rod bearings by a gear oil pump. Cooling water is circulated by a centrifugal pump. The radiator core is supported by spring steel straps and the shell is cushioned by helical springs. The radiator core and tanks are removable. The 18-in. fan is driven by a 1½ in. belt. The carburetor is a Zenith and adjustment is provided on the hot air intake. Electrical equipment includes a two-unit, American Bosch starting lighting system, Prest-O-Lite 6-volt battery, and a high tension magneto.

Brown-Lipe clutches and transmissions, mounted as units with the engine, are used in both models. The gear reductions provided by the transmissions are low, 4.09 to 1; second, 1.68 to 1; high, 1 to 1; reverse, 5 to 1. Power is transmitted to the rear axle through a 2-in. tubular propellor shaft with Blood universals at either end.

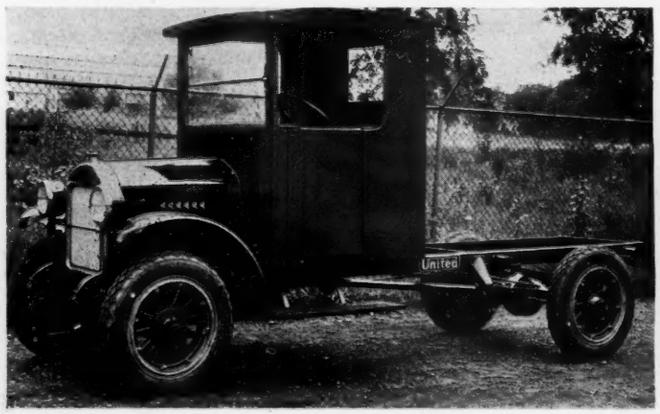
In the smaller model, the rear axle is a three-quarter floating Columbia with helical reduction gears providing a ratio of 5.1 to 1. The 2 ton model has a double reduction Wisconsin axle, the initial reduction being by bevel and the final by spur gears. The overall reduction is 7 to 1. Radius rods consisting of one main leaf of spring steel and two auxiliary leaves are used in both models. These rods extend from the spring seats on the axle to brackets riveted on the frame side rails for the purpose. Front axles have the usual I-beam section and the steering gears are of Lavine make.

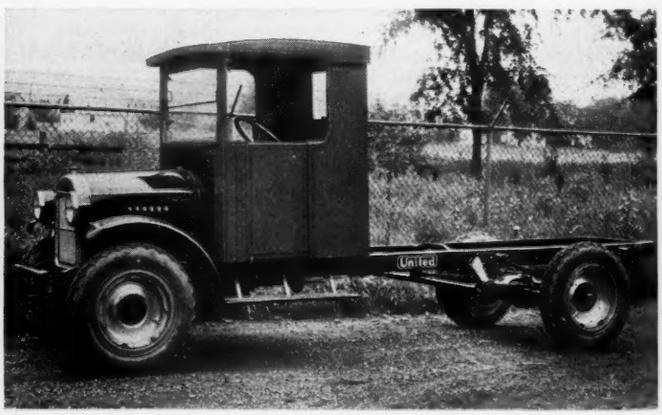
Channel section, pressed steel frames are used in both models. In the 1¼ ton job, the channels are ¼ in. thick, have a depth of 4 7/16 in., and a flange width of 3½ in. There are three well-gusseted cross members in addition to the bell housing which also serves as a cross brace. The overall length of this frame is 182 in. and the width 33 in. The side rails used in the frame of the 2-ton model are 5⅝ in. deep with 3½ in. flanges, and are braced by four cross members. The overall length of the frame of this model is 206-in. giving a loading space back of the seat of 115 in. The frame width is the same as in the smaller model.

The front springs on both models have eight leaves and are 2¼ in. wide and 39¾ in. long. The rear springs are 52 in. long in each model but the widths are 2¼ and 3-in. respectively for the small and large models. In the 1¼ ton truck, the service brakes are 16 in. in diameter with a 2½ in. face. They are of the contracting type on drums at the rear wheels. The emergency brakes act internally on the same drums. On the larger model, the service and emergency brakes operate internally on separate drums at the rear wheels.

Pneumatic tires on demountabe rims are regular equipment on the two models. On the smaller truck the size is 30 x 5 in. and on the larger, 32 x 6 in. The former model is regularly equipped with cast steel wheels while the latter is fitted with the cast aluminum disk type.

Standard equipment includes tools, jack, tire pump and pressure oil gun for the Alemite chassis lubricating system.





Two New United Motors Speed Models of 1¼ and 2 Ton Capacity, Respectively

What is the Cost and Profit In Portable Grocery Store Operation?

Governing Factors — ***Modern, Commodious, System, Amount of Sales, Development, Driver Salary, Operating Costs, Full Line of Merchandise***

THE idea of utilizing the motor truck chassis as a means of conveying the contents of a grocery store from place to place is not a new departure. It has been done for a number of years, although very little information is available as to the actual profits and success which this form of transportation has attained. The "Step-in-and-Shop type of body here illustrated is the invention of E. J. Greene, who controls the basic patents.

No Confusion

The interior of the body and the general layout will be seen from the accompanying illustrations. Special attention is called to the swinging gate which is located between the refrigerator and the bread case. This gate forces the customers on entering the store to pass down the first aisle to the end of the store and back up the other aisle to the front at meat counter, where purchases are paid for, and the customer passes out through the gate to the exit door. This gate eliminated all confusion, where otherwise the customers would pass down both aisles, causing a blockade.

The aisles in this body are roomy so that 10 to 20 women can shop in it at one time. The price of each article is marked in plain figures on the shelves. The customer has no trouble in making her selection. The store arrives on schedule time each day. It has a pleasing whistle to tell the homekeeper that it is out in front. It makes from two to five stops in a block.

"Step-in-and-Shop" at your door rolling stores are today a proved success in 15 cities. One man started in 1919 with one store and today has a chain of 38 stores. The secret of the success of the rolling store is a store large enough to carry a complete stock.

Successful Operators

The actual experiences of three owners of "Step-in-and-Shop at your door self-serve grocery and meat stores that have been in operation for three years in different sections of the country, are given below.

J. A. Hanna, of J. A. Hanna Company, Bellevue, Pa., states:

"We are pleased to advise that results have been very satisfactory in operating the 'Step-in-and-Shop' serve-self rolling store. The sales have increased 30 per cent in the past month and we wish to thank you for your co-operation. The weekly sales last week were $857.35.

"The housewives seem to appreciate more each day that the 'Step-in-and-Shop' plan is not an experiment but a reliable means of bringing to their door, in a sanitary way, a completely stocked grocery store. The fresh meats is also a big feature and the salt air refrigerator counter is a splendid idea. We have been able to keep it at a temperature of 45 degrees.

"Our average sales of bread was 180 loaves per day last month. We are much impressed with business done and hope to have a fleet of five stores in operation by fall."

Will B. Nelp, auditor of the Community Market, Pittsburgh, writes:

Highly Patronized

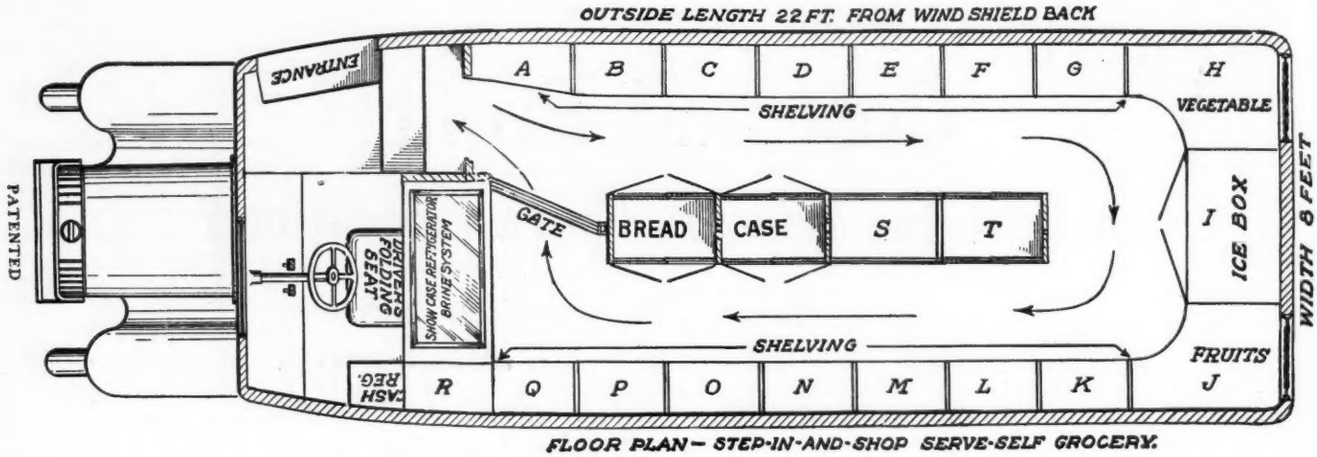
"We have been operating our "Step-in-and-Shop' self-serve rolling grocery nearly two years. The results have been far above our most optimistic hopes. We are operating in the Squirrel Hill District, the most exclusive section of the city and find the people in this section like the service very much. We find that 90 per cent of the people in the section in which we are operating patronize the store.

"During the month of June, a slow month in our business, the 'Step-in-and-Shop' store did $3,448,86 worth of cash business. So far our best day has been 217 customers, with $210.00 sales, and our best week has been $844.85. We are sure in the fall the business will reach $1,200.00 per week, as most of the folks in this section are away from June to September.

"Our operating expenses for June ran less than 10 per cent, and that included depreciation, reserves for contingencies, and repairs that we know to be twice as

Right: The Step-in-and-Shop Self-Serve Grocery.

Left: This Store is Mounted on a Standard, Model 2½-K Chassis.



FLOOR PLAN—STEP-IN-AND-SHOP SERVE-SELF GROCERY.

high as they need be. We believe in being conservative, and even charge 6 per cent interest on our investment for expenses. We are working on 20 per cent profit."

Sam Bellman, President of the Sam Bellman Company, Wholesale Grocers, 13 N. Huron Street, Toledo, Ohio, says:

"You will be interested in knowing about the complete success that we have met with in operating the 'Step-in-and-Shop' rolling store system in the past three years.

Sales Average $1,000

"The weekly sales have averaged $1,000 per week, and are on the increase. The consumption of gasoline has averaged a gallon per day and the oil approximately three quarts per week. The salary of our driver clerk is $35 a week with a bonus allowance of 1 per cent. When you figure a gross profit on a chain store basis, it can readily be proven a success.

"After three years constant operation the chassis and body seem to be in the same first-class condition as the day they were started. We do not cover more than seven miles a day and therefore it is a hard matter to figure depreciation. We estimate the life of the store from ten to fifteen years.

"It has been proven to us by practical experience the rolling store has a big advantage over the old style chain store. The overhead is much less and the volume is double. We are thoroughly convinced the rolling store has solved the minimum cost of merchandising foodstuffs.

"Just as soon as warehouse accommodations can be made we have decided to place an order with you for ten more stores."

One-Man Operation

One man operates the store. Rent, heat, light, telephone, advertising, delivery, wrapping material, and extra clerk hire are eliminated. With this system the owner does a cash business with a rapid turnover, has automatic check on his merchandise, and knows just where he stands each day.

If a man can make money operating a grocery that employs six clerks, and calls for a big outlay for rent, heat, light, telephone, advertising, wrapping material and delivery service, think what he can make with a serve-self store that carries just as complete a stock and does not have to pay any of these overheads.

Cost Calculations

"Step-in-and-Shop" at your door stores now in operation are doing $1,000 to $1,200 a week per store. Let's take the expense and profit of a store that is doing weekly business of $1,000. The large chain stores figure on a basis of 20 per cent gross—not including their 2 per cent off for cash. We will figure only 15 per cent.

Average weekly gross receipts		$1000.00
Driver-clerk salary	$25.00	
Gasoline and oil	6.00	
Clerk 1% bonus on $1000 sales	10.00	
Garage	5.00	
Total weekly expense	$46.00	
Cost of goods sold	$850.00	
Entire expense	$896.00	896.00
Net profit		104.00
Profit from eight advertising panels at $2.50 per week each		20.00
Total weekly profit per store		124.00
Net profit per store per year		$6484.00

A comparison of the expense and the profit of the chain store and the "Step-in-and-Shop" at your door motor truck stores is given below. The "Step-in-and-Shop" stores have an average business of $1,000 per week. A very close inspection shows this business to be equal to that of two chain stores. Records show $500 per week to be a very good average for a regular chain store.

Chain Store

Rent per month per store, two stores.	$200.00
Clerks (one per store), each $100 per month; two clerks	200.00
Butcher (one per store), each $150 month; two	300.00
Fixtures and equipment, $2000 per store; two stores, investment $4000, depreciation at 5% per year; a month	16.17
Light, heat, telephone, $50 per month per store; two stores	100.00
Miscellaneous, $25 per store; two stores	50.00
Total for two stores per month	$866.17

The warehouse expense of the rolling store and the chain store is about equal; this expense is not quoted. In checking up the chain store, the expense for delivering merchandise from the wholesale house to the retail store, the investment in trucks, and the salaries of the chain store checkers should be added to the above expenses.

"Step-in-and-Shop" Rolling Store

Store complete, 2½-3½ ton chassis.	$5700.00
Depreciation figures, 10% per year; per month	47.50
Driver clerk (one man operates each store), $140 per month	140.00
Butcher (one man serves four stores), $37.50 per month; each store	37.50
Gasoline, 2 gallons per day at 25 cents per gallon; per month	15.00
Oil, per month	1.50
Miscellaneous	25.00
Total for one rolling store, per month	$266.50

The proceeds from the advertising of National advertised food products placed on the eight panels of the exterior of the store, will repay the initial investment in five years. This advertising has sold for $200.00 per space.

Just to give one an idea of the depreciation of the rolling store, the chassis is guaranteed for 110,000 miles. The stores run on an average of 7 miles a day and in 10 years would not cover more than 22,000 miles, 10 per cent for depreciation is a very large margin.

The body of the "Step-in-and-Shop" at your door store is built of the best hardwood, mortised together and ironed off. The siding is of ply metal Haskelite, the best known product for this use. The stores are built like passenger coaches and good for at least fifteen years. The latest model has a folding door at the entrance such as is used on street cars, which can be opened from the driver's seat. Cushion wheels and solid tires are used. This does away with tire trouble and give good resiliency.

New Hayes Disk Wheel Reduces Weight

By the elimination of the felloe, important reductions in weight, particularly at the outer circumference, have been effected in a new disk wheel which has been brought out by the Hayes Wheel Co., Jackson, Mich. The new wheel is designed for use with the Standard Hayes rim with attached lugs and takes rims of either 3½ or 4½ in. width. All sizes of this disk wheel may be mounted on the same hub flange as the design at this point is standardized. Another advantage of this wheel is that the demountable rim construction makes it unnecessary to carry five complete wheels. The rims used are interchangeable on wood and wire wheels of corresponding size.

Aladdin-Duplex Generator for Vehicle Lighting Does Not Require Battery

AN electric generator designed for lighting purposes on heavy duty trucks and tractors, where the use of a storage battery may involve difficulties, has been brought out by the Harris Electric Co. of San Francisco, Cal. It is of the magneto type, is automatic in control and has two entirely separate armature or inductor circuits, each of which supplies current to a separate lighting circuit, so that the burning out of a bulb in one circuit will not affect the operation of the lamps in the other circuit.

No Moving Wires

Being of the inductor type, the generator has no moving wires, and generates alternating currents. Its frame or housing is composed of two identical die castings that are bolted together, the laminated pole shoes being cast in. The magnetic flux originates in flat or straight permanent magnets set into recesses formed in the halves of the housing and held in place by screws. The two pairs of permanent magnets and the two sets of pole shoes together form a single magnetic circuit which is broken at two points by the rotor tunnels.

There are two rotors, one below and one above the axis of the machine, each being surrounded by inductor coils in which the current is generated, the coils lying in slots in the pole shoes alongside the rotors and curving around the rotor shaft at the ends. As the rotors rotate the flux passes through the coils first in one and then in the opposite direction. This reversal of the flux through the coils produces the inductive action. The rotors are 1⅜ in. in diameter and weigh 14 ounces each.

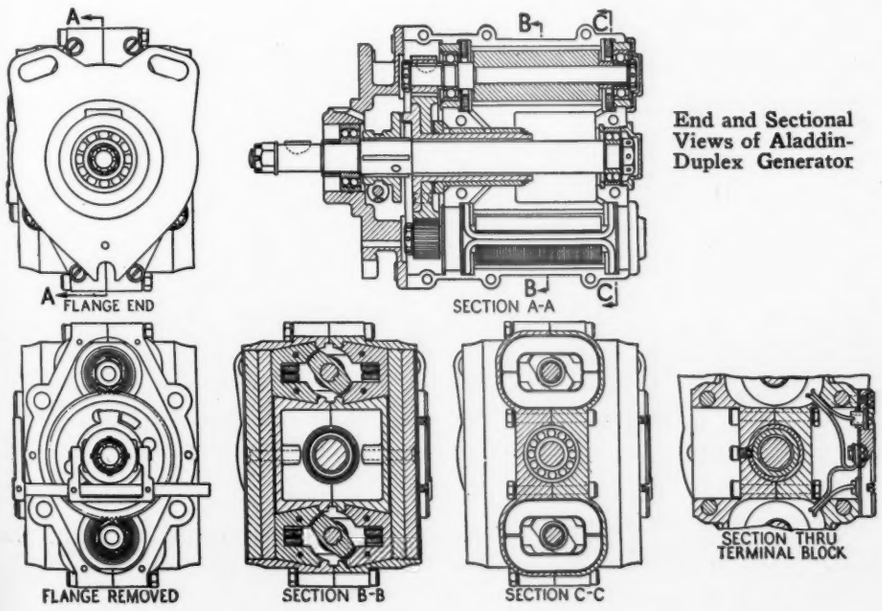
The driving shaft is located at the center of the frame and carries a positive clutch which is ordinarily disengaged so that the rotors of the generator remain at rest. When it is desired to light the lamps, this clutch is engaged, and the clutch therefore serves also as a lighting switch. The driving shaft also carries a spur gear which meshes with smaller gears on the rotor shafts, causing them to revolve at 3½ times its own speed.

It is claimed for this generator that it is self-regulating to the extent of meeting all requirements of vehicle lighting, there being less than one-half volt and less than 0.3 ampere difference in the output at engine speeds of 800 and 3,000 r. p. m., when the load consists of the usual 6 volt dash light, tail light and two head lights. The control is entirely inherent.

High Voltage on Open Circuit

A peculiar feature of this generator is that it gives a comparatively very high voltage on open circuit, in which case, of course, there is no armature reaction. Advantage can be taken of this feature to supply current to lamps at a considerable distance. It is claimed that 100 watt, 110 volt bulb at the end of 1,000 ft. of No. 18 lamp cord may be lighted up to full brilliancy, and a 6 volt 27 c. p. bulb when substituted for this high voltage bulb will also light up fully. The explanation evidently is that the low voltage lamp consumes several times as much current as the high voltage lamp and that the armature reaction and other effects due to this extra current pull down the terminal voltage from 110 to 6.

The usual arrangement of the lights on trucks where this generator is used is to connect the tail light in parallel with one headlight and the dashlight in parallel with the other, each pair being connected between one of the generator terminals and ground. The two circuits are then entirely independent. All three shafts are supported on ball bearings. Lubrication is effected from the oiling system of the engine, oil entering the generator housing through the mounting flange and returning to the crankcase through a drain tube. With the exception of the coils, all of the important parts of the generator can be removed and replaced without splitting the case.



End and Sectional Views of Aladdin-Duplex Generator

California Dealers Must Watch Long Term Notes

Motor truck dealers in California have been apprised of an application of the law govering trucks being operated by transportation companies which function as public utilities that is proving the source of some anxiety and worry. The California public utilities act prohibits companies functioning under its provisions to issue notes or other evidences of indebtedness payable at a period of more than one year after date unless an order is first obtained from the Railroad Commission authorizing it to do so. The Railroad Commission holds that unless an order is obtained from the commission such notes or other evidences of indebtedness are null void.

There are several hundreds of trucks in California in the service of certified operators who function under a certificate of public convenience and necessity issued by the Railroad Commission. It has been the general custom of such operators to purchase equipment when they saw fit and in many instances the deferred payments which the commission interprets as "evidence of indebtedness" cover a period of more than one year. It is reported that the operators seldom if ever apply to the Railroad Commission for approval of these purchases of equipment. Should the issue be forced by the authorities it might give the certified operators a loophole for refusing to meet their contracts of purchase with truck dealers in case permission had not been obtained from the commission and the notes were for a period of more than one year.

Two More Franchises Granted

The Public Utilities Commission of Massachusetts has just approved two more bus lines to be operated by street railway companies in Massachusetts. The first one is that of the Eastern Massachusetts Street Railway Co. for a line to run from Boston to Lowell with a fare of $1 between the two points for all riders, full or part. The other is to the Boston & Worcester Street Railway Co. to operate a bus line between those two cities at a charge of $2 for a single one way trip.

Revenue Bureau's Regulations on Tax Collections as Applying to the Automotive Industry

THE following is a review of the text in part of the regulations of the Bureau of Internal Revenue covering the collection of taxes from the Automotive Industry under the new Internal Revenue Act. To facilitate ready perusal and to avoid unnecessary wading through a lot of legal text only those features bearing directly upon the commercial vehicle have been excerpted.

Article 11. **Automobiles: Scope of Tax.**—An automobile truck, automobile wagon, or other automobile, is a self-propelling vehicle designed to transport along highways and roads, persons or property, or both.

Where a chassis is capable of being used in the construction of either an automobile truck, as contemplated in subdivision (1), or an "other automobile," as contemplated in subdivision (2), the primary use for which it is designed will control as to whether it is taxable at 3 per cent under subdivision (1) as an automobile truck or automobile wagon chassis, or at 5 per cent under subdivision (2) as an "other automobile chassis." The same ruling applies with respect to bodies.

Trailers are not taxable. A trailer is a vehicle not operated or controlled by its own motive power, but which is pulled or drawn behind another vehicle containing motive power. So-called trailers or "semi-trailers" so designed that a portion of the load or the weight thereof is carried or borne by the tractor or "semitractor," are taxable as "parts or accessories."

TRUCK CHASSIS AND BODIES

(1) Automobile truck chassis and automobile wagon chassis sold or leased for an amount in excess of $1,000, and automobile truck bodies and automobile wagon bodies sold or leased for an amount in excess of $200 (including in both cases tires, inner tubes, parts, and accessories therefor sold on or in connection therewith or with the sale thereof), 3 per centum. A sale or lease of an automobile truck or of an automobile wagon shall, for the purpose of this subdivision, be considered to be a sale of the chassis and of the body.

ART. 12. **Automobile truck chassis and bodies and automobile wagon chassis and bodies.**—The tax is 3 per cent of the price for which automobile truck and automobile wagon chassis and bodies are sold by the manufacturer, if such chassis and bodies are sold for amounts in excess of $1,000 and $200 respectively. It applies to automobile truck and automobile wagon chassis and bodies primarily designed or adapted for the transportation of property along highways and roads, although persons may incidentally be transported at the same time. The sale of an automobile truck or automobile wagon shall be treated, in each case, as the sale of a chassis and a body.

Fire apparatus, including fire engines, hose carts, hook and ladder trucks, water-tower trucks, etc., tank trucks for carrying oil, gasoline, water, etc., moving and furniture vans and drays, delivery wagons, automobile hearses, etc., are all classified as automobile trucks and automobile wagons. Chassis and bodies designed for use in the production of such vehicles are taxable under subdivision (1), if sold for prices in excess of those specified therein.

A chassis provided with a "superstructure" of such a design that it is without substantial additions adaptable for hauling heavy loads, or which is designed for use in the construction of a commercial car, is an "automobile truck chassis" or "automobile wagon chassis," and taxable at 3 per cent when sold by the manufacturer thereof for an amount in excess of $1,000. The term "superstructure" means any chassis frame of steel or wood or other material which is adaptable, by the addition of a few bolsters or planks, for carrying a heavy load. In the case of an automobile truck or automobile wagon chassis sold by the manufacturer for an amount in excess of $1,000, the manufacturer must return the tax of 3 per cent to the Government in all instances.

Where the purchaser of a tax-paid automobile truck chassis or automobile wagon chassis attaches thereto a commercial body manufactured by him, and sells the completed automobile truck, or automobile wagon, he is liable for a tax of 3 per cent of the selling price of the body (if sold for an amount in excess of $200). The selling price of the body must be accurately determined, and specifically recorded and billed separately. Otherwise, the manufacturer will be required to pay tax on the full price received for both chassis and body. However, credit may be taken for the tax reimbursed to the manufacturer of the chassis, as provided in Article 6. The same rule applies where the manufacturer of a taxable automobile truck chassis or automobile wagon chassis installs thereon a tax-paid body and sells the completed car.

For the purpose of determining the selling price, in order to arrive at the taxable status under subdivision (1), the terms "automobile truck chassis," "automobile wagon chassis," "automobile truck body," and "automobile wagon body" shall be construed to mean the complete chassis or body, including only such tires, inner tubes, parts and accessories, trimming, etc., as are customarily made a part of, or sold attached to or in connection with, such articles.

Subdivision (1) taxes automobile truck chassis and automobile wagon chassis sold by the manufacturer for more than $1,000, and automobile truck bodies and automobile wagon bodies sold by the manufacturer for more than $200 (including in both cases tires, inner tubes, parts and accessories therefor sold on or in connection therewith or with the sale thereof) at the rate of 3 per cent. A cab is not a part or accessory for a chassis but is a part or accessory for a body. Therefore, if a cab is sold in connection with a chassis, the selling price of the cab must be recorded and billed separately, and tax paid thereon at the rate of 2½ per cent, regardless of whether the selling price of the chassis is more or less than $1,000. Where a cab is sold on, or in connection with the sale of, a commercial body, the taxability of the cab will depend on whether or not the aggregate selling price of the body and cab and other parts or accessories for the body sold on or in connection therewith, or with the sale thereof, is in excess of $200. Where the aggregate selling price is $200 or less no tax will attach, but where it is in excess of $200 the tax of 3 per cent applies to the total amount.

The manufacturer, producer, or importer can not escape liability on the sale of a chassis or body if the selling price is made less than the taxable price specified in the act, by omitting, excluding from the sale, or billing separately tires, inner tubes, parts, or accessories customarily made a part of or sold on or in connection with such chassis or bodies. Inasmuch as subdivision (1) states that the sale or lease of an automobile truck or of an automobile wagon shall, for the purpose of this subdivision, be considered to be a sale of the chassis and of the body, and subdivision (3) prohibits the tax on such chassis or body as parts, it becomes necessary to divide an automobile into two principle units. In any case where the omission of any of the abovementioned articles occurs the manufacturer will be held liable for the tax as though such articles were or had been in fact included in the sale. Failure to so report and pay the tax will render the manufacturer liable to such penalties and interest as may have accrued under the law for failure to make proper return and payment of the tax when due. In this connection attention is also invited to the penalty imposed by Section 1017 (b) of the Revenue Act of 1924.

Sales of self-propelling motor-driven machines, such as concrete mixers, stone crushers, excavating shovels, ditch diggers, etc., and machines which perform a mechanical function as they move along highways and roads, such as road graders, road scrapers, street sweepers, road sprinklers, and oilers, are not taxable.

Any tires, inner tubes, parts, or accessories for automobile truck and automobile wagon chassis and bodies, sold on or in connection therewith or with the sale thereof are taxable at 3 per cent as part of the selling price of the complete article.

OTHER AUTOMOBILE CHASSIS AND BODIES AND MOTOR CYCLES

(2) Other automobile chassis and bodies and motorcycles (including tires, inner tubes, parts and accessories therefor sold on or in connection therewith or with the sale thereof), except tractors, 5 per centum. A sale or lease of an automobile shall, for the purpose of this subdivision, be considered to be a sale of the chassis and of the body;

ART. 13. **Other automobile chassis and bodies, and motorcycles.**—The tax is 5 per cent of the price for which such articles are sold by the manufacturer. It applies to automobile chassis and bodies primarily designed for use in the construction of automobiles for carrying persons, although property may incidentally be transported at the same time. The sale of an automobile shall be treated, for the purpose of computing the tax, as the sale of a chassis and a body.

Automobiles that are designed and primarily adapted for the transportation of persons, as distinguished from property, are "other automobiles." For example, ordinary passenger or pleasure cars, taxicabs, automobile buses, sight-seeing cars, hotel buses, omnibuses, police patrols, ambulances, cars used by fire department chiefs and marshals, mourners' coaches with accommodations for persons, other than the seat occupied in whole or in part by the driver, etc., are classified as "other automobiles," and the chassis and bodies of such vehicles are taxable at 5 per cent.

In case the purchaser of a tax-paid chassis produces an automobile, by the addition of a body manufactured by him, and sells the completed automobile, the tax must be paid by him on his selling price of the body, and unless the selling price of the body is accurately determined, and recorded and billed separately, he will be required to pay tax on the full selling price of both chassis and body, but will be permitted to take credit for the tax previously paid by the manufacturer from whom he purchased the chassis, as provided in Article 6. The same rule applies where the manufacturer of an "other automobile chassis" completes a car for sale by the use of a tax-paid body.

Considered Body Maker

Where a manufacturer of "other automobiles" produces a car by installing on a chassis manufactured by him a tax-paid body purchased from another manufacturer, and, in connection with such production, adds to the body, trimmings, finishings, etc., such additions, trimmings, etc., shall be considered further manufacture of the body, and he will be required to pay tax on the selling price of the finished body, but may take credit for the tax reimbursed to the manufacturer of the body, as outlined in Article 6.

Tires, inner tubes, parts and accessories for other automobile chassis and bodies, and for motorcycles, sold on or in connection therewith, or with the sale thereof, are taxable at 5 per cent.

ART. 14. **Combinations of chassis and bodies taxable at different rates.**—If the manufacturer of a taxable commercial body installs the same on an "other automobile chassis" manufactured by him, he must record and bill the sale of the body and chassis separately, and pay tax on the selling prices thereof of 3 per cent and 5 per cent respectively. In case a passenger body is installed by the manufacturer thereof on a taxable automobile truck chassis or automobile wagon chassis manufactured by him, the transaction must be handled in a similar manner, and the tax paid on the body and chassis at the rate of 5 per cent and 3 per cent respectively. The respective selling prices of the body and chassis must include all instruments, parts, and accessories made a part thereof, or attached to, or sold in connection therewith. Where doubt exists

as to whether a part or accessory should be classified as belonging to the sale of the body or of the chassis, the fact of customary sale of such part or accessory with either body or chassis, when sold separately, will determine.

When a chassis is of such construction that it would ordinarily be used in the production of an automobile truck or automobile wagon, if it is fitted by the manufacturer thereof with a body designed for the carriage of persons, the sale of such vehicle by the manufacturer will be taxable at the respective rates imposed by subdivision (1) on the sale of an automobile truck chassis or automobile wagon chassis (if sold for a price in excess of $1,000), and subdivision (2) on the sale of an "other automobile body."

If a manufacturer of "other automobile chassis" mounts on such a chassis manufactured by him a nontaxable commercial body, he must record and bill the respective selling prices of the chassis and body separately and pay a tax of 5 per cent upon the price properly ascribable to the chassis. Similarly, if a manufacturer of nontaxable automobile truck chassis or automobile wagon chassis mounts on such a nontaxable chassis manufactured by him a passenger body manufactured by him, he must record and bill the transaction in such manner as to properly reflect the selling price of the body and compute and pay tax thereon.

New Maxwell Chassis for Martin-Parry Bodies

THROUGH an arrangement with the Martin-Parry Co., the Maxwell Motor Corp. has added a light delivery truck in three body types to its lines. Under the plan of distribution, the Maxwell company will supply a special truck chassis listing at $735 to its dealers who will buy the bodies direct from the nearest Martin-Parry branch. The three body models, which are of an exclusive design for use only on the Maxwell chassis, are the panel type, the high side express and the low side express. The list price on the panel type is $152 and on the two express types $136.

Heavier Springs

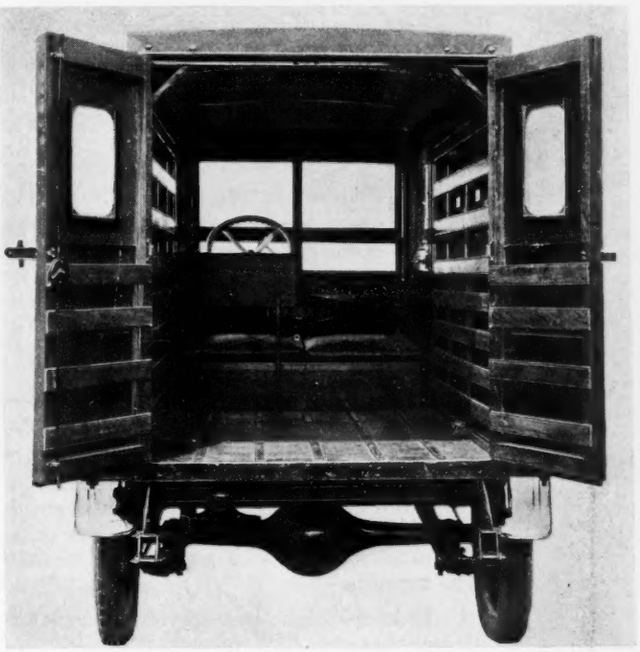
The truck chassis does not differ from that used for the passenger car except that the rear springs are heavier and stronger, and the gasoline tank is located under the driver's seat instead of at the rear of the frame. Equipment includes front and rear fenders, running-boards, headlamps, nickel radiator, disk wheels, nickel clamping rings, 31 x 4 in. tires, demountable rims, and spare tire carrier.

The bodies have a wood framework with steel panels. They are put together with bolts which facilitate replacement of damaged parts and also permit keeping the bodies tight, thus preventing squeaks and rattles. Anti-squeak material is used between all metal parts and the glass window panels are mounted in rubber.

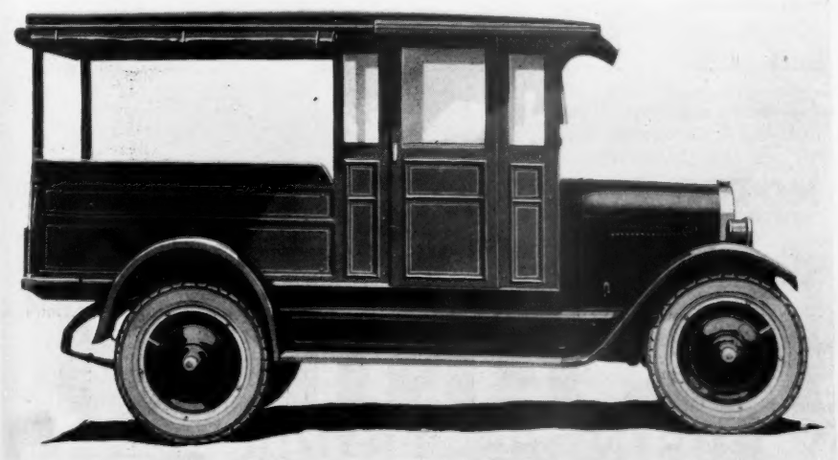
A weather-tight cab that is easy to get into and out of, is a feature of all three bodies. The doors slide forward on ball bearing carriers and lock in the open position, the lock being controlled by the door handle. The windshield is a two-piece ventilating type giving clear vision and in addition there are glass panels on each side forward of the doors so that the driver can see on both sides. The glass window panels in the doors may be dropped when ventilation is desired. The seat cushions are upholstered and are of the individual type, so that the gasoline tank may be filled without the driver leaving his seat.

The body floors are a non-warping, dustproof design. Small gaps are provided between adjacent planks to provide for expansion. These spaces are covered by metal loading strips having flanges along each edge, and are bolted in place. In loading or unloading, the cargo slides on the flanges and consequently does not catch on the bolt heads. The tops are made of wood strips covered with rubberized fabric.

The panel type, which is intended to meet the delivery service needs of such retailers as grocers, butchers, florists, etc., has an oval medalion pressed into the side panel, to carry the owner's name. On the inside, the walls are protected by slats. The rear doors are provided with a patented locking device. Adjustable braces are fitted at each side of the rear of the body so that the body may be brought back into alignment should it get out of true in service. The two express bodies are fitted with back and side curtains, and tail gate. They differ from each other only in the height of the sides which are 10 in. in one case and 20 in. in the other. The load capacity of the truck is about 1000 lbs.



Right: Interior of the Panel Type. Note Protective Slats and Locking Device.



Below: Maxwell Martin-Parry Express Unit. The Chassis Lists at $735 and the Body at $136.

Six New GMC Factory Branches

Six new direct factory branches by General Motors Truck Co. at Albany, N. Y., Newark, N. J., Fort Wayne, Ind., Fort Worth, Texas, Tacoma, Wash., and Columbus, Ohio, were recently opened. Each of the new branches will have complete service equipment worked out by the factory and will be under the supervision of factory trained service men.

Otto E. Stoll, vice-president and general manager of General Motors Truck Co., said in connection with the opening of the new branches, that their establishment is to eliminate all possible delay in servicing.

The Federal-Knight is serving the Blue Valley Creamery Co., the world's largest exclusive producers of creamery butter.

A SPEEDY TRUCK

SELLING IN FLEETS
BRINGS VOLUME PROFIT

WILLYS-KNIGHT MOTOR

$1095

Chassis f. o. b. Detroit

Here is a truck you can sell! Not one at a time—but *in fleets.*

Federal-Knight dealers are cashing in on the insistent demand for truck fleets of 1 ton and under. Eighty-two per cent of all trucks sold last year were of this capacity.

Federal-Knight best meets the demand of this great 82% market.

Lives longer. Works continuously. Costs less per ton mile.

This is the *only* motor truck in the world with a motor that actually *improves with use!* No valves to grind. No carbon-cleaning. Fewer parts. Less wear.

More than 50% savings in upkeep 20% more power. Easy on tires. Economical in gasoline—over 17 miles to the gallon.

Every Federal-Knight sold usually leads to the sale of a whole fleet of Federal-Knights. Cash in on this money-making opportunity NOW!

Valuable territory still open. Write TODAY for full particulars of the Federal-Knight franchise.

FEDERAL MOTOR TRUCK COMPANY
DETROIT, MICHIGAN

FEDERAL-KNIGHT

A SPEEDY BUSINESS TRUCK

EDITORIALS

Regarding Motor Bus Development

IN view of the tremendous interest which has been centered around the development of the motor bus at the present time, it is doubtful whether the activities which many manufacturers are exerting in this direction are guided by a definite realization of the possibilities in this market. It appears as if some are grabbing at any straw which might yield a temporary profit.

It is not our object to here criticise the manufacturer for doing what he can to keep his production on an even keel. But, there is quite a difference between the manufacturer who has set out to develop a definite type of vehicle designed to do a certain class of work and the manufacturer who is not sure from time to time just what kind of a business he is going to be in.

The motor bus at the present time is getting the full benefit of the publicity spotlight. Because electric traction companies have been active in the purchasing of buses during the past year, many manufacturers believe that from now on motor buses are going to replace electric trolleys at a tremendous rate. Some truck manufacturers are getting the "motorbus bug." They are viewing with great interest the beautiful coach jobs that are now being offered, and if not already building a vehicle of this type they are losing no time doing so.

As we pointed out in the leading article which appeared in the September issue of the Commercial Car Journal, many truck manufacturers have gone into this business without giving careful consideration to the actual market for this type of vehicle. They visualize a veritable bonanza in this field. Will it materialize? At the present time no such indications appear on the traction business horizon. Statistics show that up to the present time traction interests have absorbed approximately 1900 motor buses in the hands of about 150 companies. The N. A. C. C. statistics indicate that there are approximately 50,000 motor buses in use in the country today.

Does the latter figure not indicate that the big field lies in the independently operated buses, used by schools, large estates, hotels, sight-seeing companies, department stores and concerns that are running bus lines which in no way interfere with present traction lines?

This is the field which the present truck and passenger car dealer must develop. It is the field which is bound to grow at a very healthy rate. It is the quantity market which the manufacturer can enter without fear that the development which he has spent good money upon will perhaps some day be taken away from him.

Instead of devoting a lot of money and time to the development of de luxe buses, many truck manufacturers would secure more recognition for their products these days if they would develop de luxe motor trucks.

More attention given to the design of motor trucks would pave the way for a greater outlet of motor trucks. Such development should be along the lines of lighter vehicles, so that the vehicle itself does not weigh more than the load it carries. From the maintenance angle and economy of operation much is to be done.

The point we want to forcibly impress on some manufacturers is that it will pay them to know the true facts regarding the market for the motor bus, before going into the business. They should not neglect the development of their present line—the building of commercial motor transport vehicles. The market for the de luxe type of bus is limited, it is uncertain, no one knows just what it will be, so that the motor truck manufacturer had better proceed carefully.

The Good Roads Show

THE manufacturer of motor trucks, the body builder, the parts manufacturer, in fact every one who is connected with the automotive industry, should be vitally interested in the road building activities of this country. Every year more and better roads are being built.

But, building roads is not the only thing which concerns those actively engaged in this work. The maintenance of the road is the big job ahead of road builders and the municipalities—just as maintenance of the automotive vehicle is the big job ahead of the automotive industry.

The December issue of the Commercial Car Journal will again forecast the big convention and show of the American Road Builders' Association to be held at the Coliseum, Chicago, Jan. 6 to 9th. The December issue will be an exceptional issue of interest to the manufacturer and dealer, as it will show why the motor truck and parts industry is closely allied with the road building interests in the work of building and maintaining roads.

News of the Trade

M. & A. M. A. Convention to Discuss Business Outlook Selling and Export

Discussions on Business Outlook, Improved Methods, Foreign Trade and Credits

Sessions devoted to the business outlook, to improved merchandising methods, to foreign trade and to the handling of credits will make up the annual convention of the Motor and Accessory Manufacturers' Association, to be held in Cleveland, October 15, 16, 17.

M. L. Heminway, general manager of the M. & A. M. A., announced that G. Brewer Griffin, president of the association, will preside at the opening session which will have as its subject "The Outlook for Better Business." An internationally known financial authority will talk on the general outlook. This will be followed by a three-part discussion of the automotive outlook by Alfred Reeves, general manager of the N. A. C. C., W. O. Rutherford, president of the Rubber Association of America, and Mr. Griffin.

At the second day's session on "Better Merchandising as the Foundation of Better Business," E. P. Chalfant will be chairman. This session will continue all day on selling through the jobber, distributor and other channels and with a talk on tie-up of manufacturers' and wholesalers' advertising activities. J. H. Mehan will talk on "The Jobber's Place in the Automotive Selling System."

On the evening of the second day, F. E. Titus will preside over a discussion on, "The Foreign Trade Opportunity; How to Take Advantage of It." Foreign trade outlook and on selling the foreign trade through an export department and through an export sales agent will be discussed.

The third day will be given over to credit work, with a manufacturers' and foreign trade credit session, the morning presided over by M. A. Moynihan, and a session on Jobbers' credits in the afternoon with R. S. Harvey, as chairman.

Sessions will be held at the Hollenden Hotel in Cleveland with the local arrangements in charge of C. E. Thompson.

M. A. M. A. Completing Jobber Session Plans

Acceptance of the assignment, "Making the Jobber or Distributor Part of the Manufacturer's Advertising Program," by C. A. Musselman, president of The Class Journal Co. and of the Chilton Co., practically completes the program for the jobbers' session of the annual convention of the Motor and Accessory Manufacturers' Association in Cleveland, Oct. 15-17.

The morning session of the second day, Oct. 16, has been turned over to topics of interest to the jobbers, with E. P. Chalfant, chairman of the board of the Gill Manufacturing Co., presiding. Other speakers at this session will be J. H. Mehan, manager of the Research Club, whose topic will be "The Jobber's Place in the Automotive Selling System"; L. A. Safford, vice-president of the McQuay-Norris Manufacturing Co., "Getting and Holding the Interest of the Jobber Salesman"; and Neal G. Adair, manager of the show department of the Motor and Accessory Manufacturers' Association, "The M. A. M. A. Show Program as a Merchandising Medium."

Bus Patrons to be Entertained by Radio

ENTERTAINMENT by radio is to be provided to patrons making trips on a bus line owned by the Central Transportation Company of Lakewood, N. J. This will be the first time that a bus was actually equipped with a radio in commercial service for the entertainment of its riders. The set is a Heterodine and can pick up selections at great distances. It is equipped with a loud speaker. This is a rare treat for patrons making the forty-two mile trip of this line.

Farmers Relate Trucking Experiences

Experiences of farmers who have owned and used motor trucks over various parts of the country as a guide to farmers contemplating the purchase of a machine have just been made public by the Department of Agriculture.

Among the outstanding facts collected are:

(1) Motor trucks enable the farmer to take advantage of better markets at greater distances.

(2) In the area covered by these reports nearly half the total number replying stated they preferred the 1-ton machines.

(3) Over 90 per cent of the owners stated that their trucks proved to be profitable investments.

(4) Saving of time was given as the greatest advantage and poor roads as the greatest disadvantage connected with the use of motor trucks.

(5) On the average it requires less than half the time to make a haul of a given length with a truck than it does with horses.

(6) While many owners used their machines for some hauling on the farm itself a large part of such hauling was still done with horses.

(7) A small percentage of the owners stated that they did some custom work, but that it constituted on the average only about one-tenth of the total hauling done with their machines.

Underwriters and Industry Concur on Compulsory Insurance Issue

Compulsory Liability Insurance Impractical. It Would Not Reduce Accidents

Consensus of thought at the annual convention of the National Association of Insurance Agents in an emphatic refutation of compulsory insurance as a panacea for adequately compensating the sufferer of an accident. Strong opposition was voiced in a discussion of the subject. No defence of compulsory insurance was found in any quarter.

It was contended that compulsory insurance would not make the reckless driver less reckless. Rather the careless driver might shelter under the protection of such a law.

George M. Graham, chairman of the Traffic Planning and Safety Committee of the National Automobile Chamber of Commerce, in his address summed up the situation perfectly. He went into detail on the safety work being done by various organizations and wound up by outlining the industry's views on insurance.

"The automobile industry has not up to this time been able to convince itself of the equity or the efficiency of compulsory insurance as a safeguard to traffic," Mr. Graham declared at the end of his speech.

Discussing safety work, Mr. Graham proposed that through revocation of licenses, jail sentences, and the impounding of the car for a period depending upon the gravity of the offense, the operator convicted of carelessness resulting in serious injury or death should be made to realize that highways are open only to those who can use them without jeopardizing human life.

The G & O Manufacturing Co. Moves Into Its New Home

The G & O Manufacturing Co. of New Haven, Conn., maufacturers of radiators for passenger cars, trucks, tractors and aeroplanes, recently moved into a new and larger plant in the same city.

Charles Oppe, treasurer of the company reports that the constantly increasing demands upon the equipment of the previous factory made it necessary to seek more commodious quarters. The new plant is modern in every respect and is equipped with modern machinery.

The executive staff has been enlarged and the number of operatives increased. The offices and works of the G & O Manufacturing Co. have been located in New Haven for many years. With the recent change in manufacturing facilities the company is now in position to greatly enlarge its output.

Retail Tire Dealer to be Defined by N. T. D. A. Convention, Nov. 18

Proper Settlement Expected to Remedy Trade Ills and Distasteful Practices

Determining the definition of a retail tire dealer is the chief aim of the National Tire Dealers' Association, which will bring up for general discussion at its fifth annual convention in Akron, November 18-20, a plan for definitely settling this long extended controversy. It is the opinion of responsible tire dealers throughout the country that upon this question hinges the reason for the many mal-practices indulged in by tire retailers. Back of it, they say, is the overcrowded condition in the retail field, with its resultant price cutting and other distasteful practices.

While the program for the Akron meetings is alive with subjects bearing on better tire merchandising, it is believed that the question of dealer qualification will provoke the most interesting discussions. Georgs J. Burger, president of the association, has received letters from dealers in scattered sections of the country complaining because of the conditions created by the activities of questionable dealers.

"The big question in the minds of the tire manufacturers right now," states the president, "is how can he distribute his product at the lowest possible cost through channels which will assure him of a constant, honest and reliable contact with the ultimate consumer. He also is concerned as to how he can establish a relationship with his dealer which will be lasting and which will tend to increase his good will value.

"At the Akron convention dealers from all parts of the country will express themselves on this question. The N. T. D. A. is desirous only of presenting in a fair manner its views on the retail situation in the hope that some final action will be taken by the manufacturers in establishing a true definition of a tire dealer. Such action will be profitable to the manufacturer and the dealer, for the crux of the tire merchandising situation lies in determining the exact status of a tire dealer."

Fair Trade League Denounces "Hidden Demonstrators"

A canvass of the members of the American Fair Trade League, representing a great variety of industries and located in almost every state of the United States, has revealed unanimous opposition to the practice of using so-called "hidden demonstrators." This practice, as defined by Edmond A. Whittier, secretary-treasurer of the League in his inquiry, involves the payment by manufacturers to retailers' salespeople of subsidies for their services in pushing the manufacturer's merchandise, these subsidies being paid through and with the knowledge of the employer, who is enabled thereby to reduce his own payroll, and without the knowledge of the retail purchaser.

As the result of recent investigation Mr. Whittier declares that the chief offenders among retail merchants in this particular are the "notorious predatory price-cutters of the country who seek to profit by the prostitution of their own clerks as 'hidden demonstrators' and force this system upon unwilling manufacturers."

"With practical unanimity members of the American Fair Trade League" says Mr. Whittier, "have condemned this practice as a pernicious form of commercial bribery, unfair to competitors, unfair to distributors and misleading to the consuming public."

Nearly 2,000,000 Trucks in United States

20 Per Cent Increase for Six Months. 1,831,405 Trucks, 74,946 Taxis Registered.

According to the semi-annual count made by the United States Bureau of Public Roads automobiles registered in the United States during the first six months of 1924 show a 20 per cent increase over the corresponding period of a year ago. The total registration amounted to 15,552,077.

Segregated, this total shows the following interesting facts: 13,645,726 passenger cars; 1,831,405 trucks, and 74,946 taxis. In each of four states there were over a million motor vehicles registered. Of these New York ranked first with 1,223,362; California close second with 1,184,015; Ohio third with 1,160,000, and Pennsylvania fourth with 1,085,285.

Big Truck Display Will be at the Electrical Show

The electric vehicle section of the New York Electrical Exposition, which will be held at the Grand Central Palace, Lexington Ave. and Forty-Sixth St., N. Y., Oct. 15-25, will be a typical show in itself.

The electrical vehicle exhibit, which will occupy the entire northern half of the second floor, will consist of street trucks, industrial trucks, storage batteries, battery charging equipment and electric garage accessories. Interesting data on traffic conditions and the function of the electric truck in solving local problems is being prepared by transportation engineers for presentment during the show.

Among the exhibitors to be there are: Commercial Truck Co., Electruck Corp., O. B. Electric Vehicles, Inc., Walker Vehicle Co., Ward Motor Vehicle Co., Baker R & L, Edison Storage Battery Co., Electric Storage Battery Co., General Electric Co.

Traction Cars to be Abandoned

Trolley cars operated over the tracks of the Pennsylvania and New Jersey Traction Co., between Lambertville and Yardley, and Newtown and Yardley will be discontinued. Authority to abandon the service was granted by the Public Service Commission of Pennsylvania. The trolleys will eventually be replaced with buses, however.

Commercial Car Division of A. A. A. Endorsed by N. A. C. C.

Plans Now Under Way for Immediate Inauguration of the New Division

Having been promised the co-operation of the National Automobile Chamber of Commerce in forming a commercial car division of the American Automobile Association, Thomas P. Henry, president of that organization, appeared before the motor truck members of the Chamber at their meeting at headquarters last week and told them of the plans that are being made for inaugurating such a division.

Mr. Henry asked the makers to co-operate with the A. A. A. by having their dealers and branch managers tell their customers of the advantages to be derived from membership in this new A. A. A. division, so that when representatives of the organization start recruiting membership they will find truck and bus owners in a receptive mood. He pointed out that truck operators and passenger car owners have much in common and by uniting can bring about much needed legislation. He also emphasized the intention of the A. A. A. division to compile operation and maintenance costs on national as well as a sectional basis, something that has not been attempted before.

Some of the advantages to be derived from a truck division, as pointed out by Mr. Henry, are:

1. Greater use of trucks, due to increased knowledge of their efficiency, availability, and low cost in comparison with other types of transportation.
2. Extension and widening of roads due to facts gathered and presented as to increased tonnage carried over highways.
3. Extension of snow removal work by authorities on roads carrying a large amount of tonnage.
4. The further development of regular bus and truck routes with an increased knowledge upon the public's part of their extension and usefulness.
5. Propaganda developed for making great direct arterial highways for the rapid transfer of freight.

N. A. C. C. Endorses Trade Days

The motor car manufacturers of the country will give their support to the trade days plan at the National Automobile Shows this winter and will send their engineers, production men and purchasing agents to New York and Chicago for the trade days. This support was assured when a resolution to that effect was passed unanimously by the directors of the National Automobile Chamber of Commerce.

This action will be of particular benefit to parts and accessory manufacturers whose business is with the car makers. It will give them an opportunity never before afforded to meet and consult with executives representing the manufacturers at a time when they are in a position to exhibit and demonstrate their products.

Program for S. A. E. Production Meeting, Oct. 22-24

Factory Methods and Production to be Discussed in All Its Phases

The program for the production meeting of the Society of Automotive Engineers, to be held in Detroit, October 22 to 24, inclusive, is rapidly being whipped into shape and it is expected that it will be complete by the end of the week.

There will be about 20 papers on factory methods presented and production engineering in all its phases will be discussed. As it stands at the present time, the program is as follows:

Morning: Wednesday, Oct. 22.— Registration, after which the first meeting will be held, at which the following papers will be presented: "Reducing Manufacturing Costs," A. L. De Leeuw, consulting engineer; "Coining-Press Operations on Automobile Parts," A. R. Kelso, Hudson Motor Car Co.

Afternoon: "Experience With the Group-Bonus Plan," H. G. Perkins, Maxwell Motor Corp.; "Reducing Labor Turnover," C. A. Lippincott, Studebaker Corp.; "Methods of Shipping Motor Cars," Ben Moore, Dodge Bros., and Frank Henry, Studebaker Corp.

Evening: "Automobile Glass Manufacture, Inspection, Defects and Salvage," John H. Fox, Pittsburgh Glass Co.

Thursday, Oct. 23, Morning: "Utilization and Prevention of Waste," Carl B. Auel, Westinghouse Electric & Manufacturing Co.; "Salvage of Tools," L. A. Churgay, Maxwell Motor Corp.; "Reducing Wood Waste in Body Manufacture," B. Neaglevoort, Towson Body Co.; "Combatting the Checking of Wood in Drying Ovens," H. D. Tiermann, Forest Products Laboratory.

Afternoon: "Some Notes on Tool Design," Joseph Lannen, Paige-Detroit Motor Car Co.; "Avoiding Mistakes in Tool Design," Paul V. Miller, Taft-Pierce Manufacturing Co.; "Improvements in Nickel Plating," W. H. Graves, Packard Motor Car Co.; "Durability of Plated Surfaces," W. H. Phillips, General Motors Corp.

Evening: Production dinner at Hotel Statler.

Friday, Oct. 24: "Supervision of Factory Maintenance; Reducing Its Cost," E. E. Remington, Ford Motor Co., L. A. Blackburn, Olds Motor Works; Fred Sharp, Oakland Motor Car Co.

Afternoon: "Factory Visitation," optional visits to Ford Motor Co.'s Highland Park plant, Continental Motors Corp., Hudson Motor Car Co. and possibly others.

Graham Bros. Now Division of Dodge Bros.

Graham Bros. hereafter will be operated as a division of Dodge Bros. Graham originally built truck units as an independent entity, later the company put out complete trucks employing Dodge Bros. parts. Under the new arrangement the organization and identity of Graham Bros. is to remain intact.

With the announcement of change of status comes the report that a new one-ton truck will shortly be placed on the market. Under the former arrangement the complete trucks offered by Graham Bros. contained Dodge Bros. chassis and the units in many instances were sold by Dodge dealers with the implied sanction of the factory. Under the new arrangement practically all Dodge Bros. sales outlets become available for the marketing of the commercial line.

From Dodge Bros. viewpoint the change in status gives the company a fully developed commercial department. Besides the addition of the truck manufacturing department will not claim space which is being used by the larger concern, as the truck manufacturing department is already organized and operating.

N. A. C. C. Urges Remedies to Cut Motor Fatalities

The estimated traffic toll for the first eight months of the year is 11,000 with August the first month showing any certain recession.

The following five remedies are urged by the National Automobile Chamber of Commerce for the remainder of the year:

1. **Hold Down to 20 Miles**—This should be a maximum in all residential sections, except where there are special boulevard provisions.
2. **A 90 Day Clean-Up**—Clear the streets and highways for the law abiding walkers and motorists. Jail sentences, revocation of licenses and taking away of the car will do it.
3. **Remind the Children**—Safety education in the schools should be especially emphasized at the beginning of the term.
4. **Gather Statistics**—Are the greatest number of accidents occuring near schools, during or after school hours, in residential streets or in congested areas?
5. **Through Routing**—It is a service to the townspeople and tourists, to route the latter around the city limits as far as possible. This relieves congestion and lowers the traffic hazard.

THE "PEDICAB" RECEIVES A JOLT

Drivers of the "Pedicab," the Chinese taxi, must not eat garlic under pain of $100 fine, the Department of Commerce has just been informed.

In addition to their abstinence from garlic, the drivers of the "Pedicabs" which are fast shunting the time honored rickshaws into oblivion, must wear uniforms, and bathe regularly.

The "Pedicab" is in a form of bicycle rickshaw propelled as a push bicycle, the driver sitting in front and working the pedals, while the passenger sits in a "most comfortable carriage behind." They are advertised as cheap, hygienic and fast.

Statistics Showing Impressive Bus Growth in California

8,000,000 Passengers in Excess to the Number Carried Last Year

Figures just announced by the State Railroad Commission show that in the last calender year a total of 29,202,073 passengers were transported by auto stage lines in California, an increase of approximately 8,000,000 over 1922. Freight to the extent of 833,246 tons was transported. The operating revenue of all the auto carriers amounted to $17,554,980.86, and the operating expense $16,237,160.31.

The total investment in plant and equipment is about $14,000,000. Included in the equipment are 1665 passenger cars and 1276 freight cars. In addition the auto carriers have in use 355 other pieces of equipment such as trailers. These figures do not include cars and trucks leased from time to time to take care of traffic demands, nor do they include the buses used strictly within the city limits as feeders to street cars or as separate lines, which would greatly swell the total.

Statistics compiled by the commission show that there are 670 auto stage and truck lines operating under the jurisdiction of the commission, of which 165 are freight carriers, and 121 passenger carriers. Both passengers and freight are transported by 120 and passengers and express by 136. Passengers, freight and express are carried by thirty-five lines and twenty transport freight and express alone. Seventy of the freight carriers operate under special certificates, their operations being limited to the transportation of specified commodities, especially products or supplies requiring special equipment and service in their handling.

Advisory Board to Meet Dec. 4-5

Responding actively to the slogan, "The practical application of highway research," sounded by Director Charles M. Upham of the Advisory Board on Highway Research of the National Research Council, forty State Highway Commissions have already named representatives on this Board. Through the State representation, the Highway Commission and the Advisory Board will have a medium whereby research problems may be thoroughly studied. The problems will be brought to the attention of the various States and others engaged in highway research, and the solutions will be made known to the State Highway Commissions through their representatives, or contact men.

Announcement is made that the Annual Meeting of the Advisory Board will be held at the new National Research Council building, Washington, D. C., on December 4th and 5th, when the various committees will report and a program, to be announced later, will be presented. It is expected that there will be present at this meeting a representative from each State Highway Commission, at well as representatives of the member organizations of the Board and others interested in its work.

Motor-Bus Lines Being Consolidated

At the end of 1923 there were 28 States which had adopted the policy of regulating motor vehicles engaged in common-carrier service, according to the Bureau of Public Roads of the United States Department of Agriculture. In general, control over routes, service, and fares is exercised by the State public-service commission.

Through regulations and the promulgation of rules the State commissions supervise the operations of motor buses; speed limits are established; provisions are made for all kinds of safety measures, rules of conduct, and the hours on duty of drivers are definitely prescribed, the capacity of loads is fixed, and all manner of precautions are taken for the benefit of the traveling public.

According to the information obtained from a number of State commissions which regulate the operations of all common-carrier motor vehicles, there is a tendency for the individual operators to be taken over by corporations organized for this purpose; consolidation of small operators is also noted. Large companies are appearing which control the routes in a given section of a State. The motor-bus business may pass through the same consolidation movement which took place in the early days of the street railway business.

Shippers Endorse Store Door Delivery

A unanimous vote of some 250 members of the Atlantic State Shippers' Advisory Board at its regular September meeting gave the store door delivery plan its stamp of approval. This action followed the favorable report of a special committee which had been studying store door delivery.

The report disclosed that increased flexibility at terminals, through handling of more merchandize and quicker movement of l. c. l. freight, and increased car supply would be the main benefits under a store door delivery plan.

In the store door plan, however, the delivery must be optional, the carrier must assume full responsibility to and from store door, the cost should be borne by shippers and receivers, the trucking charges must be just and reasonable, reflecting the advantages to the carrier of increased terminal flexibility, and the new system should be established gradually.

Indiana Fleet Owners' Association Changes Name

The Indiana Highway and Motor Association is the new name of Allied Motor Commerce of Indiana, an association of fleet owners and highway construction industrialists which have taken a prominent part in motor vehicle regulation and protection and highway advancement in Indiana for several years.

The change in name was brought about to widen its influence and to attract members who believe the state should push its highway construction work and help the automotive industry and transportation development.

The old Advisory Board now becomes the Board of Directors, with the following membership: Bert O'Leary, Fred M. Pitcher, W. W. Bond, Geo. M. Bailey, O. P. Lloyd, W. C. Root and W. W. Holland.

Later an Advisory Board will be appointed from various parts of the state. An active campaign will be conducted for sane automotive legislation and for more modern highways for Indiana.

Federal Government to Definitely Express Attitude Toward Associations

Preliminary steps toward securing a definite expression from the Federal government as to its attitude toward trade associations were taken this week when representatives of the Chamber of Commerce of the United States, the National Automobile Chamber of Commerce and other representative bodies conferred with Federal authorities.

The committee, headed by Alfred Reeves, general manager of the N. A. C. C., and Richard F. Grant, president of the U. S. Chamber of Commerce, conferred with Attorney-General Stone, Secretary Hoover and the Federal Trade Committee.

No immediate expression of opinion was sought at the recent conference, but it was indicated that a further conference will be held in November and at that time the chamber hopes some definite basis upon which trade association activities may be safeguarded can be worked out.

Heed is Appointed Vice-President of Garford

The Garford Motor Truck Co. of Lima, has announced the appointment of Mr. Rushmore B. Heed as vice president in charge of sales.

Mr. Heed is well known in the motor truck industry, in which business he has been active since 1916, when he left the automobile insurance field to join the sales force of the Diamond T.

Since entering the business, Mr. Heed's activities have been principally in the Chicago territory. He has held the positions of Chicago Sales Manager of the Republic Motor Truck Co., Chicago Branch Manager of Diamond T Motor Truck Co., Special Corporation Salesman for Mack, and was recently again associated with the Diamond T as National Account and Corporation Sales Manager. Mr. Heed will take up his duties as vice-president of the Garford Motor Truck Co., effective September 1st, with headquarters at the Garford factory in Lima, Ohio.

Indiana Announces Dividends

The directors of the Indiana Truck Corp. have declared their regular quarterly dividend No. 31 of 1¾ per cent on the Preferred Stock of the Corporation, payable October 1, 1924, to Stockholders of record September 30, 1924.

Durant Abandons Distributor System

A change in sales policy has been made by Durant Motors, Inc., which has resulted in the abandonment of the distributor system and the adoption of direct dealer selling connections for the Star and Durant at all centers of population. The latter will be under the direction of wholesale offices, which in turn will be under the control of Colin Campbell, vice-president in charge of sales and production.

Already 11 of these wholesale offices have been established—at Atlanta, Boston, Cincinnati, Chicago, Dallas, Denver, Elizabeth, Kansas City, Philadelphia, Pittsburgh, St. Louis and Lansing—all of them being east of the Rockies. At a few points the old distributorships continue in force for the time being because of local conditions which require some time to work out.

While most of the distributorships have been cancelled, a majority of the old distributors have continued as direct dealers, operating in and around their various cities and in accordance with the new policy.

In his new work Mr. Campbell is bringing with him the policy he developed when with the Chevrolet company—that of direct dealer representation. Mr. Campbell believes that direct selling connections enable the manufacturer to be sure that every square mile of territory is covered with selling and maintenance facilities, which, he believes, is essential in marketing low-priced transportation, the low prices of which are based on volume.

Motor Transport Show Postponed, Nov. 16-22

According to literature received from Motor Truck Industries, Inc., Detroit, the National Motor Transport Show will be held on Nov. 16-22 at the American Exposition Palace, Chicago, Ill. This date supersedes the announcement made in a previous issue of Commercial Car Journal.

An official buyers' guide, the compilation of which is now in process, will be freely circulated at the show and among fleet owners and bus operators. The show, it is stated, will be announced through direct-by-mail methods, trade medium and newspaper publicity.

Service Motors, Inc., Status Unaffected

The suit for receivership recently filed for the old Service Motor Truck Co. will only affect Service Motors, Inc., in that it will expedite final disposition of all corporal matter pertaining to the old company.

The company will continue as it has since its incorporation in the manufacture and merchandising of Service motor trucks. Relationships with the company will not be affected in any manner by this receivership.

Personals

C. A. Bieber is now general manager of the Eaton Axle & Spring Service Co., having general charge of the five Eaton factory branches, as well as of the jobbing department of the Eaton Axle & Spring Co. **W. J. Keegan** will assist. Headquarters, 6515 Carnegie Ave., Cleveland, O.

R. E. Clingan, of the Bock Bearing Co., Toledo, Ohio, has just returned from a two months' trip to Europe, where he visited various business interests in Germany, France, Austria and Switzerland as well as spending some time with British Bock Bearings, Ltd., at London and Glasgow. As a result of his negotiations, Fried Krupp & Co., of Essen and Berlin, have been licensed to manufacture Bock Bearings under the Bock patent. Negotiations are also under way with French interests.

E. J. Cosgrave, formerly New York branch manager of the Eaton Axle & Spring Co., has been appointed sales manager of the Eaton Bumper Division and transferred to Detroit, where he will be located at the General Motors building.

George Cox, well known in retail automobile circles, has been placed at the head of the Reo Motor Car Co., Inc., Missouri. Mr. Cox was formerly connected with the Willys-Overland branch in Kansas City, of which he had charge. Early connections: Pope-Hartford Co., Thomas B. Jeffery and Dodge Brothers.

V. H. Day and **B. M. Price** were named regional vice-presidents by the General Motor Truck Co. The former is to be in charge of distribution on the Pacific Coast with headquarters in San Francisco, and Mr. Price will occupy a similar relation to Atlantic Coast business with headquarters in New York. C. H. Engleman becomes sales manager of the company with headquarters at the factory in Pontiac.

Edward H. Fitch, president of the Republic Rubber Co., Youngstown, O., died Sept. 20. Ever since he took hold of the reins in the capacity of president, which was a year ago, his company has made rapid strides forward. He was one of the pioneers of the tire industry.

H. W. Garton has become president of the Electo Co., New York operator of a large fleet of trucks for the James A. McCreery and Lord & Taylor Department stores. Joseph Husson, one time editor of the Commercial Vehicle, now Motor Transport, has become general manager.

Doc. W. C. Geer will sever his relation with the B. F. Goodrich Co., where he served as vice-president in charge of research, some time next year. Although he will continue to keep in touch with the company in an advisory capacity, Doc. Geer expects to spend the next few years in travel to study lines stimulated by his long connection with the scientific features of the rubber industry.

W. J. Herrmann has joined the Field Body Corp., Owosso, Mich., as supervisor of distribution. He was formerly with the Martin-Parry Corp. and the Continental Car Co. The Field Corp. is in standard production with a line that will take care of practically every chassis installation that may be required.

C. I. Ochs, vice-president and general manager of the Axle Division of the Eaton Axle & Spring Co. of Cleveland, has been appointed general manager of the entire company, embodying the bumper, Spring and Axle Divisions with plants at Cleveland, Ohio; Pontiac, Mich., and Albany, N. Y.

John G. Painter, former sales manager of the Continental Motors Corp., and later with the Disteel Wheel Co., has joined the staff of Charles G. Monson, manufacturers' agent in Detroit. Painter is well known in the parts and accessories field.

George H. Palm, designing engineer for the Yellow Coach Manufacturing Co., of Chicago, has severed his connections with that concern to become associated with Benjamin S. Pfeiffer, consulting engineer of Chicago, specializing on axle and transmission design for motor coaches and trucks.

W. R. Roestel, formerly Cleveland branch manager of the Eaton Axle & Spring Co., has been transferred to New York, where he will take charge of the Eaton factory branch at 616 W. 56th St.

H. W. Slauson resigned as engineering service manager of the Kelly-Springfield Tire Co. in order to take up the work of a consulting automotive engineer. He has opened an office in the Fisk Bdg., 250 West 57th St., New York City. A portion of his work with the Kelly-Springfield Tire Co., however, will be continued by him.

Lon R. Smith has joined the Zenite Metal Company of Indianapolis, as manager of the windshield division. Smith has at various times been affiliated with the following: The Eisemann Magneto Co., the Buda Company, Midwest Engine Co., and was for a time a member of the Council of the Society of Automotive Engineers.

G. B. Stone, general sales manager of the Remy Electric Company, has announced the addition of G. H. Bernard and C. S. Poland to the sales organization. The former will concentrate on motor bus electrical equipment sales and the latter will take the place at the factory of R. H. Smith. Mr. Smith was recently transferred to the Detroit sales office.

Robert S. Taylor has been appointed distributor in Seattle, Wash., completing a chain of distribution through the entire length of the Pacific Coast for the Republic Motor Truck Co., located at 401 E. Pine St.

COMING EVENTS

CONVENTIONS

American Gear Manufacturers Assn.—Midsummer meeting to be held at Briarcliff Lodge, Briarcliff Manor, N. Y., from October 16 to 18, 1924.

American Road Builders Assn.—Convention and road show to be held January 6 to 9, 1925, at the Coliseum, Chicago. Chas. M. Upham, director, State Highway Commission, Raleigh, N. C.

California Automobile Trade Assn.—Annual meeting to be held in October, 1924. Date and place to be announced later. R. W. Martland, Mgr., Oakland, Cal.

Iowa Automotive Merchants Assn.—Annual meeting to be held November 13 and 14, 1924, at Des Moines, Iowa. A. J. Knapp, Sec.-Mgr.

Michigan Automotive Trade Assn.—18th annual convention to be held in Detroit, Mich., January 21, 1925. W. D. Edendurn, Mgr., Hotel Addison, Detroit.

Motor & Accessory Manufacturers Assn.—Annual convention to be held at Cleveland, October 15-18, 1924. M. L. Heminway, Gen. Mgr. E. P. Chalfant, chairman of the committee, will handle the affair.

National Hardware Assn.—30th annual convention to be held at Hotel Marlborough-Blenheim, Atlantic City, N. J., from October 14 to 17, 1924. T. James Fernley, Sec., 505 Arch St., Philadelphia.

National Standard Parts Assn.—Meeting to be held week of November 10th (tentative), 1924, at Chicago.

National Tire Dealers Assn.—Annual convention to be held November 18 to 20, 1924. Hosts: Akron Retail Tire & Accessory Dealers Assn.

Ohio Automotive Trade Association—Annual convention to be held December 10 and 11, 1924, at Columbus, Ohio. E. J. Shover, Mgr., 310 Majestic Bldg., Columbus.

Pennsylvania Automotive Assn.—Annual convention to be held October 17 and 18, 1924, Wilkes-Barre, Pa. R. C. Duffus, Mgr., 302 Security Bldg., Harrisburg, Pa.

Texas Automotive Dealers Assn.—Annual convention to be held in March, 1925, at Austin, Texas. W. A. Williams, Mgr., San Antonio.

SHOWS

Birmingham, Ala., December 1 to 6, 1924—Annual Dixie Automobile Show will be held at the new Municipal Auditorium under the auspices of the Birmingham Motor Trade Assn. G. P. Caldwell, Sec.

Boston, Mass., March 7 to 14, 1925—23rd annual show to be given under the auspices of the Boston Automobile Dealers Assn., Inc., at the Mechanics Bldg. (125,000 sq. ft.). Passenger cars, trucks, tractors and automotive equiment. Chester I. Campbell, Mgr., 329 Park Sq. Bldg.

Boston, Mass., October 10 to 17, 1925—World's Rubber and Tropical Exposition will be held at Mechanics Hall. Chester I. Campbell, Mgr.

Chicago, Ill., November 10 to 15, 1924—6th annual show of the Automotive Equipment Assn. to be held at the Coliseum (50,000 sq. ft.). Automotive, shop and service station equipment. A. B. Coffman, Mgr.

Chicago, Ill., Nov. 16-22, 1924—National Transportation Show to be held at the American Exposition Palace under the auspices of Motor Truck Industries, Inc., Capital Bldg., 120 Madison Ave., Detroit. Delivery systems, omnibuses, bodies, trailers, etc. Wm. N. Hallanger, Gen. Mgr.

Chicago, Ill., January 24 to 31, 1925—National Automobile Show to be held under the auspices of the National Automobile Chamber of Commerce, Coliseum and First Regiment Armory.

Dallas, Texas, October 11 to 26, 1924—Annual auto show will be held on the Fair Grounds under the auspices of the Dallas Automotive Trade Assn.

Detroit, Mich., January 17 to 24, 1925—24th annual show to be held at Convention Hall, under the auspices of the Detroit Auto Dealers Association. Passenger cars, trucks and automotive supplies. H. H. Shuart, Mgr.

Newark, N. J., January 10 to 17, 1925—18th Annual Automobile Show to be held at the 113th Infantry Armory (30,000 sq. ft.), under the auspices of the Newark Automobile Dealers. Passenger cars, trucks and automotive equipment. Claude E. Holgate, Mgr., Chamber of Commerce Bldg.

New York, N. Y., October 15 to 25—New York Electric Exposition, including exhibits of leading electric vehicle and parts manufacturers. Grand Central Palace, Lexington Ave. at 46th St.

Shreveport, La., October 30 to November 9, 1924—Annual auto show to be held in connection with the State Fair of Louisiana. Passenger cars, trucks, tractors and automotive equipment. W. R. Hirsch, Sec.-Mgr.

Washington, D. C., January 24 to 31, 1925—5th annual show of the Washington Automotive Trade Association to be held at Convention Hall. Passenger cars, trucks, accessories. Rudolph Jose, Show Mgr., 1138 Connecticut Ave.

N. A. D. A. MEETINGS

January 5, 1925—Convention in connection with a show at Hotel Commodore, New York City.

January 29 and 30, 1925—8th annual convention to be held at Hotel La Salle, Chicago. Lynn M. Shaw, Asst. Gen. Mgr., 329 N. Grand Ave., St. Louis, Mo.

N. A. C. C. MEETINGS

October 21 to 24, 1924—Production meeting at Detroit, Mich.

November 18 and 19, 1924—Joint service meeting with the S. A. E. to be held at Cleveland, Ohio.

S. A. E. MEETINGS

October 22 to 24, 1924—Production Meeting at Detroit, Mich.

November 18 and 19, 1924—Service Engineering Meeting at Cleveland, Ohio.

January 8, 1925—Annual Dinner to be held at New York City.

January 20 to 23, 1925—Annual Convention at Detroit, Mich.

January 21, 1925—Annual Carnival scheduled for Detroit, Mich.

KEY OF ABBREVIATIONS

Wheelbase:
°—More than one wheelbase furnished.

Tires:
§§—Unless marked otherwise all tires are solids.
•—Pneumatics standard equipment.
‡—Pneumatics at Extra Cost.
†—Dual on Rear.

Engine:
Bud—Buda Co., Harvey, Ill.
Con—Continental M. Corp., Detroit, Mich.
D—Head & Side
GBS—Golden, Belknap & Swartz Co., Detroit, Mich.
H—Overhead.
Her—Hercules M. Mfg. Co., Canton, Ohio.
Hin—Hinkley Motors, Inc., Detroit, Mich.
H-S—Herschell-Spillman Motor Co., North Tonawanda, N. Y.
H-C—Holl Scott Motor Co., Berkeley, Cal.
L—L-Head.
Lyc—Lycoming M. Corp., Williamsport, Pa.
Mid—Midwest Eng. Co., Indianapolis, Ind.
FP—Full Pressure to all bearings including wrist pins.
PC—Pressure to all crankshaft and connecting rod bearings.
PS—Pressure with splash.
SP—Circulating splash.
T—T-Head.
Wau—Waukesha M. Co., Waukesha, Wis.
Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.
Yell—Yellow Sleeve Valve Eng. Works, East Moline, Ill.
X—Sleeve.

Governor:
Con—Continental M. Corp., Detroit, Mich.
Dup—Duplex Eng. Gov. Co., Brooklyn, N. Y.
Han—Handy Gov. Co., Detroit, Mich.
Hin—Hinkley Motors, Inc., Detroit, Mich.
McK—E. R. Klemm, Chicago, Ill.
Mon—Monarch Gov. Co., Detroit, Mich.
Non—Not Supplied.
Pha—Pharo Mfg. Co., Detroit, Mich.
Pie—Pierce Governor Co., Anderson, Ind.
Sim—Duplex Eng. Gov. Co., Brooklyn, N. Y.
Wau—Waukesha M. Co., Waukesha, Wis.

Radiator:
Bre—Bremer-Tully Mfg. Co., Chicago, Ill.
Bus—Bush Mfg. Co., Hartford, Conn.
Cor—Corcoran Mfg. Co., Cincinnati, Ohio.
Chic—Chicago Mfg. Co., Chicago, Ill.
E&M—English & Mersick Co., New Haven, Conn.
Fed—Fedders Mfg. Co., Buffalo, N. Y.
Fle—Flexo Mfg. Co., Los Angeles, Cal.
G&O—G. & O. Mfg. Co., New Haven, Conn.
Har—Harrison Rad. Corp., Lockport, N. Y.
Idl—Ideal Sheet Metal Works, Chicago, Ill.
Lon—Long Mfg. Co., Detroit, Mich.
McC—McCord Rad. & Mfg. Co., Detroit, Mich.
McK—McKinnon Dash Co., Buffalo, N. Y.
Per—Racine Radiator Co., Racine, Wis.
R-T—Rome-Turney Rad. Co., Rome, N. Y.
S-J—Shotwell-Johnson Co., Minneapolis, Minn.
Spl—Splitdorf Electrical Co., Newark, N. J.
Stn—Standard Radiator Co., Inc., Springville, N. Y.
US—U. S. Cartridge Co., Lowell, Mass.
Whe—Wheeler Rad. & Mfg. Co., E. Cleveland, Ohio.

Fuel System:
Car—Carter Carburetor Co., St. Louis, Mo.
Ens—Ensign Car. Co., Los Angeles, Cal.
G—Gravity.
Hol—Holley Carburetor Co., St. Louis, Mo.
Joh—Johnson Co., Detroit, Mich.
Mar—Marvel Carburetor Co., Flint, Mich.
P—Pressure.
Ray—Beneke & Kropf Mfg. Co., Chicago, Ill.
Sco—Briscoe Devices Corp., Pontiac, Mich.
She—Wheeler Schebler Carburetor Co., Indianapolis, Ind.
Ste—Detroit Lubricator Co., Detroit, Mich.
Str—Stromberg Motor Devices Co., Chicago, Ill.
Til—Tillotson Mfg. Co., Toledo, Ohio.
V—Vacuum.
Zen—Zenith-Detroit Corp., Detroit, Mich.

Electrical System:
‡—Generator & Starter at Extra Cost.
†—Starter not Supplied, Generator at Extra Cost.
A-C—Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Apo—Apollo Magneto Corp., Apollo, Pa.
A-K—Atwater Kent Mfg. Co., Phila., Pa.
A-L—Electric Auto-Lite Corp., Toledo, O.
Ber—Ericsson Mfg. Co., Buffalo, N. Y.
Bij—Bijur Motor Appliance Co., Hoboken, N. J.
Bos—American Bosch Magneto Co., Springfield, Mass.
Con—Connecticut Telephone & Electric Co., Meriden, Conn.
Del—Dayton Engin. Lab. Co., Dayton, Ohio.
Dyn—Owen Dyneto Corp., Syracuse, N. Y.
Eis—Eisemann Magneto Corp., Brooklyn.
G&D—Gray & Davis, Boston, Mass.
Kin—Kokomo Electric Co., Kokomo, Ind.
K-W—K W Ignition Co., Cleveland, Ohio.
L-N—Leece-Neville Co., Cleveland, O.
N-E—North East Elec. Co., Rochester, N. Y.
Non—Not Supplied.
POL—Prest-O-Lite Co., Inc., Indianapolis, Ind.
Rem—Remy Electric Co., Anderson, Ind.
RBo—Robert Bosch Magneto Co., New York, N. Y.
Sci—Scintilla Magneto Co., New York, N.Y.
Sim—Simms Magneto Co., E. Orange, N. J.
Spl—Splitdorf Electrical Co., Newark, N. J.
Wag—Wagner Elec. Mfg. Co., St. Louis, Mo.
Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.
USL—U. S. Light & Heat Corp., Niagara Falls, N. Y.

Clutch & Gearset:
•—Other ratios optional.
A—Amidships.
B & B—Borg & Beck Co., Chicago, Ill.
B-L—Brown-Lipe Gear Co., Syracuse, N. Y.
Cot—Cotta Transmission Corp., Rockford Ill.
Cov—Covert Gear Co., Lockport, N. Y.
Det—A. J. Detlaff Co., Detroit, Mich.
D-G—Detroit Gear & Machine Co., Detroit, Mich.
Dod—Dodge Brothers Co., Detroit, Mich.
D—Disk.
Dun—Dundore Mfg. Co., Reading, Pa.
Durs—Durston Gear Corp., Syracuse, N. Y.
Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.
G-L—Grant Lee Gear Corp., Cleveland, O.
Har—Hartford Auto Parts Corp., Hartford, Conn.
Hoo—Hoosier Clutch Co., Muncie, Ind.
H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.
J—Unit with Jackshaft.
K—Cone.
M-E—Merchant & Evans Co., Phila., Pa.
M-M—Mechanics Mach. Co., Rockford, Ill.
Mun—Muncie Gear Works, Muncie, Ind.
O—Disk in Oil.
P—Plate.
R—Rear Axle.
U—Unit with Engine.
W-G—Warner Gear Co., Muncie, Ind.

Universal:
Blo—Blood-Bros. Mach. Co., Allegan, Mich.
Det—Universal Products Co., Detroit, Mich.
Har—Hartford Auto Parts Corp., Hartford, Conn.
M-M—Mechanics Machine Co., Rockford, Ill.
M-E—Merchant & Evans Co., Phila., Pa.
Pet—Cleveland Universal Parts Co., Cleveland, Ohio.
Pic—Carl Pick Co., West Bend, Wis.
Sne—Snead & Co., Jersey City, N. J.
Spi—Spicer Mfg. Corp., S. Plainfield, N. J.
The—Thermoid Rubber Co., Trenton, N. J.
U-M—Universal Machine Co., Bowling Green, Ohio.
U-P—Universal Products Co., Detroit, Mich.

Front and Rear Axles:
½—Semi-Floating.
¾—Three-Quarter Floating.
Atl—Atlas Axle Co., Wilmington, Del.
Cla—Clark Equip. Co., Buchanan, Mich.
Col—Columbia Axle Co., Cleveland, O.
Con—Continental Axle Co., Edgerton, Wis.
C—Chain.
B—Straight Bevel.
D—Dead.
Eat—Eaton Axle Co., Cleveland, Ohio.
Fli—Flint Motor Axle Co., Flint, Mich.
F—Floating.
Huc—Huck Axle Co., Chicago, Ill.
I—Internal Gear.
LM—L. M. Axle Co., Cleveland, Ohio.
P—Spur Gear.
R—Double Reduction.
Rus—Russel Motor Axle Co., Detroit, Mich.
S—Spiral Bevel.
Sal—Salisbury Axle Co., Jamestown, N. Y.
She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
Shu—Shuler Axle Co., Inc., Louisville, Ky.
Std—Standard Parts Co., Cleveland, O.
Tim—Timken Detroit Axle Co., Detroit, Mich.
Tor—Eaton Axle & Spring Co., Cleveland, Ohio.
Vul—Vulcan Motor Axle Co.
Wal—Walker Axle Co., Chicago, Ill.
W—Worm.
Wis—Wisconsin Parts Co., Oshkosh, Wis.

Brake:
A—Rear Wheels only.
B—Drive Shaft and Rear Wheels.
C—Front and Rear Wheel.
D—Jackshaft and Rear Wheels.

Springs:
Am—American Auto Parts Co., Detroit, Mich.
Arm—General Motors Co., Pontiac, Mich.
Bea—Beans Spring Co., Inc., Massillon, O.
Bet—Betts Bros. Sp. Co., Inc., San Francisco, Cal.
Cha—Champion Auto Sp. Co., St. Louis, Mo.
Del—D. Delany & Son, Newark, N. J.
Det—Detroit Steel Prod. Co., Detroit, Mich.
G-C—Garden City Sp. Works, Chicago, Ill.
Har—Harvey Sp. & Forging Co., Racine, Wis.
I-C—Iron City Spring Co., Pittsburgh, Pa.
Lig—Liggett Sp. & Axle Co., Monongahela, Pa.
Mar—Maremont Mfg. Co., Chicago, Ill.
Mat—Mather Spring Co., Toledo, O.
Mer—E. R. Merril Spring Co., New York.
Pen—Penn Sp. Works, Baldwinsville, N. Y.
Per—Perfection Sp. Co., Cleveland, O.
Phi—Phila. Sp. Works, Phila., Pa.
P.S.—Point Sp. Co., Pittsburgh, Pa.
S. S.—Standard Steel Sp. Co., Coraopolis, Pa.
Ste—Sterling Spring Co., Pittsburgh, Pa.
Tem—Temme Sp. Corp., Chicago, Ill.
Tut—Tuthill Sp. Co., Chicago, Ill.
U. S.—United States Sp. Co., Los Angeles, Cal.
Vul—Jenkins Vulc. Sp. Co., Richmond, Ind.

Steering Gear:
CAS—C. A. S. Products Co., Columbus, O.
Dit—Ditwiler Mfg. Co., Galion, Ohio.
Dod—Dodge Bros. Co., Detroit, Mich.
Gem—Gemmer Mfg. Co., Detroit, Mich.
Jac—Saginaw Products Co., Saginaw, Mich.
Lav—Lavine Gear Co., Milwaukee, Wis.
M-P—Muncie Gear Works Corp., Muncie, Ind.
Ros—Ross Gear & Tool Co., Lafayette, Ind.
Sag—Saginaw Products Co., Saginaw, Mich.
Woh—Wohlrab Gear Co., Racine, Wis.

Wheels:
Arc—Archibald Wheel Co., Lawrence, Mass.
A-W—Auto Wheel Co., Lansing, Mich.
Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.
Bud—Budd Wheel Co., Phila., Pa.
Cla—Clark Equip. Co., Buchanan, Mich.
Day—Dayton Steel Foundry Co., Dayton, Ohio.
Det—Detroit Panel & Plywood Co., Detroit, Mich.
Dis—Disteel Wheel Corp., Detroit, Mich.
Hay—Hayes Wheel Co., Jackson, Mich.
Hoo—Hoopes, Bro. & Darlington, Inc., West Chester, Pa.
Ind—Indestructible Wheel Co., Lebanon, Ind.
Int—Interstate Foundry Co., Chicago, Ill.
Jon—Jones, Phineas & Co., Newark, N. J.
Kel—Kelsey Wheel Co., Detroit, Mich.
MM—Michigan Malleable Iron Co., Detroit.
Mot—Motor Wheel Corp., Lansing, Mich.
Mun—Muncie Wheel Co., Muncie, Ind.
Nor—Northern Wheel Corp., Alma, Mich.
Pru—Prudden Wheel Co., Lansing, Mich.
Roy—Royer Wheel Co., Aurora, Ind.
Sch—Schwarz Wheel Co., Phila., Pa.
Smi—Smith Wheel. Inc., Syracuse, N. Y.
StM—St. Marys Wheel Co., St. Marys, O.
Std—Standard Wheel Co., Terre Haute, Ind.
Van—Van Wheel Corp., Oneida, N. Y.
Wal—Walker Axle Co., Chicago, Ill.
Way—Wayne Wheel Co., Newark, N. Y.
Whit—Whitcomb Wheel Co., Kenosha, Wis.

Rim Equipment:
Fir—Firestone Steel Products Co., Akron, Ohio.
Gdy—Goodyear Tire & Rubber Co., Akron, Ohio.
Hay—Hayes Wheel Co., Jackson, Mich.
Jax—Jaxon Steel Prod. Co., Jackson, Mich.
Kel—Kelsey Wheel Co., Detroit, Mich.
Mil—Miller Rubber Co., Akron, Ohio.
Non—None Supplied.

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Passenger Transportation Are Designated in the Following Table by Reference Sign (§) in Front of the Name

For Specially Designed Motor Bus Chassis See Pages 44 and 45

See Table for Replacement Data. Truck Frame Dimensions Are Included in Same Table

(Where prices are not given it is because we have been unable to get them from authoritative sources)

For full name and address of manufacturer and information regarding complete line see page 43

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System: Carburetor (Make)	Engine: Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
1000 Pounds																																	
Chevrolet Sup.Com.Ch	410	103	30x3½*	30x3½*	Own	3¼x4	21.7	H	PS	Non	Har	Zen	G	Rem	Rem	Own	K	Own Sup	U	3	Own	Own Sup	S	½	3.77	12.5	A	Own Sup	S.S	Own	Hay	Jax	1430
Overland..91	395	100	30x3½*	30x3½*	Own 91	3½x4	19.6	L	PC	Non	Own	Til	G	A-L	A-L	B&B	P	Own 91	U	3	Own	Own 91	B	½	4.50	17.6	A	Own 91	Own	Own	Hay	Hay	1550
1500 Pounds																																	
§Corbitt S.	1300	130	34x4½*	34x4½*	H-S 30	3½x5	19.8	L	PS	Non	McC	Str	V	Eis	Dyn	B-L	D	B-L 30	U	3	Spi	She W1002	W	½	6.00	20.0	A	She 33FA	She	Ros	Bim	Fir	3420
Dodge Brothers	730	116	32x4*	32x4*	Own	3 7/16x4½	24.0	L	SP	Non	McC	Ste	V	N-E	N-E	Own	D	Own	U	3	Own	Own	S	½	4.54	18.9	A	Own	Own	Own	Kel	Kel	1992
Rainier...R-31	1970	125	35x5*	35x5*	Con N	3⅝x5	22.5	L	PS	Mon	Har	Zen	V	Eis	Non	B-L	D	B-L 30	U	3	Har	Tim 6258	W	½	6.75	22.5	A	Tim 1250	Per	Lav	Jon	Fir	2500
§Ruggles 15	....	122	32x4½*	32x4½*	H-S 30	3½x5	19.6	L	PS	Non	Per	Zen	G	Bos	Bos	M-E	P	Ful J	U	3	Spi	Col 3000	B	¾	5.81	19.7	A	Col 3000	Det	Jac	Nor	Fir	2300
White 15	2400	133½	34x5*	34x5*	Own GK	3¾x5 1/8	22.5	L	SP	Non	Own	Zen	G	....	....	Own	D	Own 15	A	5	Spi	Own 15	B	½	5.36	18.6	A	Own 15	....	Own	Woo	Fir	3225
Yellow Cab Di Mod T3	1295	109	29x4½*	29x4½*	Con V-7	3¾x5	22.5	L	PS	Non	Lon	Zen	G	Bos	N-E	B-L	D	B-L 30Y	U	3	Spi	Tim 5330	B	½	4.90	16.3	B	Tim 1341 Dey	Mar	Gen	Mot	Fir	2500
1 Ton																																	
Autocar F	2200	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8 30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
Autocar G	2300	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Bessemer G	....	124	35x5*	35x5*	Con N	3¾x5	19.6	L	PS	Non	Stn	Str	G	Bos	Bos	Ful	D	Ful TU¾	U	3	Blo	Tor Bevel	B	D	....	....	A	She 350	Per	Ros	Sch	Fir	3000
§Bethlehem KN	1595	125	33x5*	33x5*	Own KN	3½x5	19.6	L	FP	Non	G&O	Zen	V	Bos	G&D	B&B	P	D-G	U	3	Spi	Eat 10000	B	½	6.86	21.8	...	Eat 750	Mat	Lav	Van	Fir	2650
Betz J-3	1850	140	34x5*	34x5*	Own J-3	3¾x5 ½	22.3	L	...	Non	Chi	Zen	G	Bos	Bos	B-L	P-D	B-L 30	U	3	Spi	Tim 6352	W	½	....	....	A	Tim 1250	Mar	Ros	....	Fir	3150
Brockway E-3	....	135	33x5*	33x5*	Wis SU	4x5	25.6	H	PC	Non	G&O	Zen	V	Eis	L-N	B-L	D	B-L 30	U	3	Spi	Col 52024	S	F	5.13	20.5	A	Col 5089	Row	Gen	.....	Fir	2900
Casco A	1700	130	34x5*	34x5*	Bud WTU	3¾x5 1/8	23.4	L	PC	Non	G&O	Zen	V	Bos	Bos	Ful	...	Ful SUI	U	3	Spi	Col 52000	S	½	5.85	23.4	A	Col 5000	Sta	Woh	Arc	Fir	3200
§Chevrolet Sup	495	120	31x4*	34x4½*	Own Sup	3¼x4	21.7	H	PS	Non	Har	Zen	G	Rem	Rem	Own	K	Own Sup	U	3	Own	Own Sup	S	½	5.43	18.1	A	Own Sup	S.S	Own	Hay	Jax	1850
Commerce 11	....	127	34x5	34x5	Con N	3¾x5	22.5	L	SP	Non	Lon	Zen	V	Bos	Bos	Ful	D	Ful SU2	U	3	U-M	Sal 1481	B	¾	5.85	23.4	A	Sal 1415	Amc	Jac	Smi	Fir	2930
Concord E	2500	135	34x5*	36x6*	Bud GBU	4x5¼	25.6	L	PC	Non	Own	Zen	V	Eis	Wes	B-L	D	B-L 30	U	3	Spi	Tim 6352	W	½	6.20	24.8	A	Tim 1452	....	Ros	Arc	Fir	3500
Corbitt E	1600	130	34x3½‡	34x4‡	Con N	3¾x5	22.5	L	PS	Non	McC	Str	V	Eis	Bij‡	B-L	D	B-L 30	U	3	Spi	She W1501	W	½	7.80	25.9	A	She 33FA	She	Ros	Bim	.....	3730
§Diamond T75	1500	130	33x5*	33x5*	Her OX	4 x5	25.6	L	PC	Non	G&O	Zen	G	Apo	A-L†	Cov	D	Cov JUC	U	3	Spi	Col 52000	B	¾	5.12	18.5	A	Col 5000	Mat	Gen	Mot	Fir	2825
Diehl A	....	115	34x4½*	35x5*	Con N	3½x5	19.6	L	PS	Non	Per	Zen	G	Sim	Non	B&B	P	Dur 02800	U	3	Har	Tor OX2L	I	D	5.30	....	A	Sal 1455	Mar	Ros	Sch	Fir	2400
Dorris K-2	2490	Opt	33x5*	33x5*	Own	4 x5½	25.6	H	PC	Non	Mod	Str	V	Bos	Wes	Own	D	W-G	U	3	Spi	Tim 5512	B	½	4.23	15.6	A	Tim 1250	Row	Ros	Mun	.....	2000
Duplex G	....	132	33x5*	33x5*	Bud WTU	3¾x5 1/8	22.5	L	PC	Non	Mod	Zen	V	Wes	Wes	B-L	D	B-L	U	3	Pet	Tim	B	½	5.50	22.0	A	Tim 1250	Pen	Woh	Mot	Fir	3000
Federal R-2	....	132	33x5*	33x5*	Con J-4	3¾x5	22.5	L	FP	Non	Own	Zen	V	Eis	Rem	B&B	P	Det	U	3	Pet	Tim 6250	W	½	5.60	18.7	A	Tim 1250	.....	Gem	Dis	.....	2950
§Ford T	370	124	30x3½*	32x4½*	Own T.T.	3¾x4	22.5	L	...	Non	Own	Own	G	Own	Own	Own	D	Own TT	U	2	Own	Own TT	W	½	Opt	19.9	B	Own TT	Own	Own	Own	Own	1572
Fulton A	1495	130	35x5*	35x5*	Bud WTU	3¾x5 1/8	22.5	L	PC	Non	Liv	Zen	G	Sim	Dyn	Cov	D	Cov JNC	U	3	Spi	She W1002	W	½	6.10	.....	A	Col 5038	Row	Lav	Hoo	Fir	3600
§Garford 15	....	132	34x5*	34x5*	Bud MU	3 5/8x5 1/8	21.0	L	PC	Non	Lon	Str	G	A-L	A-L	B&B	P	Own 15	U	3	Spi	Tim 6258	W	½	6.50	.....	A	Own 15	Per	Gem	.....	Fir	3500
§Gary WLD	1590	132	36x5	36x5	Bud WTU	3¾x5 1/8	22.5	L	PC	Pie	Chi	Str	G	Eis	Rem	Ful	D	Ful TU¾	U	3	Blo	Tim 5511	W	½	5.50	24.7	A	Tim 1452	Det	Ros	Pru	Gdy	3200
§GMC K-16	....	132	34x5*	34x5*	Own K-16	3½x5½	19.6	L	FP	Own	McC	Mar	G	Sim	Rem	Own	D	Own K16	U	3	U-M	Own K-16	B	¾	6.00	21.9	A	Own K-16	.....	Own	Kel	.....	3435
Gotfredson 20 B	1475	131	33x5*	33x5*	Bud WTU	3¾x5 1/8	22.5	L	PC	Non	McC	Zen	V	Rem	Rem	B&B	P	B-L 20	U	3	Spi	Cla-B307	B	½	5.00	15.0	B	Sal 1546-E	Amc	Gem	Van	Fir	3000
§Graham Bros. BA	1265	140°	33x4½*	34x5*	Dod 4	3 7/16x4½	24.0	L	PS	Non	McC	Ste	V	N-E	N-E	Dod	D	Dod 4	U	3	U-P	Own B360	S	½	5.50	22.9	A	Dod 4	Det	Dod	Kel	Kel	2960
Gramm-Bern.10-Sp	....	129	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Zen	G	Con	A-L	Mun	D	Mun T2311B	U	3	Own	Sal 1483	B	¾	5.75	23.0	B	Sal	Per	Ros	Van	Fir	2370
Grass-Premier 40	1360	126°	32x4½*	33x5*	Lyc CT	3¾x5	22.6	L	PC	Non	Chi	Str	V	Bos	Bos	B-L	D	B-L	U	3	Spi	Cla	S	½	5.10	28.0	A	Sal	Det	Ros	StM	Fir	2600
Independent (Iowa) J	1450	135	34x5*	34x5*	Bud WTU	3¾x5 1/8	22.5	L	PC	Non	Chi	Zen	V	Bos	Bos	Ful	D	Ful	U	3	Blo	Sal	B	...	5.73	....	A	Shu	Mit	Ros	StM	Fir	3480
Indiana 11	....	129°	34x5*	34x5*	Her OX	4 x5	25.6	L	PC	Non	McC	Str	G	A-L	A-L	B&B	P	Mun T-23	U	3	Blo	Cla 307	S	½	5.66	22.6	A	Sal D	She	Ros	Bim	Fir	3300
Internt'l "S"	....	124	32x4½*	32x4½*	Lyc-Spec	3½x5	19.6	L	PC	Non	Lon	Ens	G	Con	A-L	Mun	D	Mun	U	3	Sne	Eat	I	D	6.30	25.2	A	Tor 75	Sta	CAS	Opt	.....	2750
Kearns H	1150	118	32x4½*	32x4½*	H-S 7000	3½x5	19.6	L	PS	Non	Own	Zen	V	Bos	Dyn	B&B	....	Ful	U	3	M-E	Col 5200B	B	F	5.85	18 0	A	She D-260	She	Lav	Sch	Fir	2000
Kenworth OS	2150	131	30x5	30x5	Bud WTU	3¾x5 1/8	22.5	L	PC	Non	Own	Str	V	Bos	Non	B-L	P	B-L 30	U	3	Blo	She W 1002	W	½	6.00	28.8	A	She 33FA500	Lah	Ros	Smi	Fir	4100
Kenworth OL	2250	140	30x5	30x5	Bud WTU	3¾x5 1/8	22.5	L	PC	Non	Own	Str	V	Bos	Non	B-L	P	B-L 31	U	3	Blo	She W 1501	W	½	7.80	37.5	A	She 33FA500	Lah	Ros	Smi	Fir	4200
King-Zeitler	2050	134°	34x4‡	34x5‡	Con J4	3¾x5	22.5	L	FP	Pha	Chi	Str	G	Eis	Bos‡	B-L	D	B-L 31	U	3	Pie	Tim 6258	W	½	6.75	32.4	A	Tim 1460	Mar	Gem	Bim	Fir	3750
Kissel	1585	140	34x5*	34x5*	Own	3 7/16x5½	24.1	L	SP	Non	McC	Str	V	Rem	Rem	W-G	D	W-G T38L	U	3	Spi	Tim 6258	W	...	6.2	22.8	A	Tim 1452	Mat	Jac	Std	Sch	3780
Luedinghaus	....	130	34x4½*	34x4½*	Wau X	3½x4½	19.6	L	PC	Non	Own	Zen	G	Spi	Dyn	B&B	P	D-G D-Y	U	3	...	Wis 800G	W	½	....	....	A	Col 5000	....	Lav	.....	.....	2850
§Menominee	1650	132	34x5*	34x5*	Wis SU	4x5	25.6	H	PC	Non	Per	Zen	G	Eis	Bos	B&B	P	Det KY400	U	3	Spi	Col 5200	S	½	4.58	18.3	A	Col 52000	Per	Lav	Std	Fir	2925
Moreland R-R	1875	130	34x5*	34x5*	Her OBX	4x5	25.6	H	PC	Non	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 5512	B	½	5 37	22.0	A	Tim 1250	U-S	Ros	.....	Fir	3335
Moreland RC	2280	180	32x6*	32x6*	Her OBX	4 x5	25.6	L	PN	onC	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 5512	B	½	5.37	22.0	A	Tim 1250	U-S	Ros	Own	Gdy	3850
§Nash 2018	1595	130	34x4‡	34x5‡	Own 4	3¾x5½	22.5	L	F	Sim	Lon	Str	G	Eis	A-L	B&B	P	D-G C	U	3	Own	Cla 1-D	I	D	6.80	21.8	D	Own 2018	Har	Lav	A-W	.....	3400
Nelson LeMoon GP-1	....	151	34x5*	34x5*	Con S4	4¼x4½	28.9	L	FP	Non	Chi	Str	G	B-L	Bos	B-L	D	Ful LTU5	U	3	Spi	Cla B307	W	¼	5.66	....	D	Tim 1250	Tut	Ros	StM	....	3700

§Nash 2018	1595	130	34x4‡	34x5‡	Own 4	3¾x5¼	22.5	L	F	Sim	Lon	Str	G	Eis	A-L	B&B	P	D-G C	U	3	Own	Cla 1-D	I	D	6.80	21.8	D	Own 2018	Har	Lav	A-W	.....	3400
Nelson LeMoon GP-1	...	151	34x5*	34x5*	Con S4	4¼x4½	28.9	L	FP	Non	Chi	Str	G	B-L	Bos	B-L	D	Ful LTU5	U	3	Spi	Cla B307	W	½	5.66	.....	A	Tim 1260	Tut	Ros	StM	Fir	2700
Noble A-76	1875	130	34x5*	34x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Chi	Zen	V	Spl	Bos	Ful	D	Ful LTU4	U	3	Blo	Cla B-360	W	½	6.28	25.1	B	She 33FA	Tut	Ros	Bim	Fir	3400
O. K. O	1575	131	33x5*	33x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Own	Zen	V	Eis	Dyn	Ful	D	Ful LTU	U	3	Har	Tim 6250	W	½	6.75	.....	A	Tim 1250	Tut	Ros	Mot	Fir	3250
Ogden A2	.....	125	34x5*	34x5*	Con N	3¾x5	22.5	L	PS	Non	Chi	Zen	V	Spl	Bos‡	B-L	D	B-L 30	U	3	Pic	Tim 6258	W	½	5.60	18.6	A	Tim 1250	Tut	Ros	Std	Gdy	3100
Parker B23	1400	131°	33x5*	33x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Own	Zen	V	Wes	Wes	Ful	D	Ful Su-2	U	3	Blo	Fli 72BA	B	F	5.50	22.0	A	Fli 72BA	Tut	Lav	Bim	Fir	2700
Patriot 7R	1475	128	35x5*	35x5*	Con N	3¾x5	22.5	L	PS	Non	Mod	Str	V	Bos	Bij	B&B	P	Cov MA	A	3	The	Tim 6258	W	½	6.25	22.6	A	Fli 50B	Mar	CAS	Bim	Jax	2900
Penn	750	122	30x3½*	32x4½*	Own	3½x4	19.6	L	...	Non	Own	Til	G	A-L	A-L	B&B	P	Own	U	3	Own	She	W	½	5.50	20.0	A	Own	Own	Sch	Fir	2175
Pioneer AA	1550	132	34x4½*	34x4½*	GBS	3¾x4½	22.5	L	PS	Non	Own	Zen	V	Bos	A-L	.....	D	D-G	U	3	The	.....	W	¾	6.10	25.1	A	.....	G-C	Wol	Bim	Fir	2500
Rainier R-29	2150	133	34x3½‡	34x4‡	Con N	3¾x5	22.5	L	PS	Mon	Har	Zen	V	Eis	Bos‡	B-L	D	B-L 30	U	3	Spi	Tim 6258	W	½	6.75	22.5	A	Tim 1250	Per	Lav	Jon	.....	2700
Sandow GA	....	120	34x4*	34x5*	Con N	3¾x5	22.5	L	PS	Non	Chi	Str	G	Eis	Non	Ful	D	Ful TU¾	U	3	Spi	Tim 1501W	W	...	7.00	23.4	A	She FA-500	.....	Ros	Opt	Fir	3000
Sanford W-10	....	140	33x5*	33x5*	Con 8-R-6	3⅝x4½	27.3	L	PC	Non	R-T	Str	G	Con	Dyn	Ful	P	B-L	U	3	Spi	Sal D	W	¾	5.75	23.5	A	Sal D	She	Gem	Hoo	Fir	....
Stewart 16	1195	130	34x4½*	34x4½*	Lyc K	3¾x5	22.5	L	SP	Non	Own	Zen	G	Rem	Rem‡	Ful	D	Ful SU-1	U	3	Spi	Cla AW	B	¾	5.10	24.0	A	Col3008	Det	Gem	.....	Fir	2480
§Transport 15	....	128	32x4½*	32x4½*	Con N	3¾x5	22.5	L	PS	Non	Mod	Zen	V	Rem	Rem	Ful	D	Ful SU-1	U	3	Blo	Col 51000	B	¾	5.10	20.4	A	Col 5000	Det	Lav	Mot	Fir	2950
Triangle AA	1285	123	34x4½*	34x4½*	H-S 2700	3¼x5	16.9	L	PS	Non	Per	Str	G	N-E	N-E	Ful	D	Ful LTU4	U	3	U-P	Cla B-306	B	½	5.66	22.6	A	Eat 75	Det	Gem	Nor	Fir	2600
§United Highway	....	128	34x4½	34x4½	H-S 7000	3¼x5	19.6	L	PS	Non	Per	Zen	G	Bos	Bos	Ful	D	Ful	U	3	Spi	Tim 5511	W	¾	5.80	22.5	...	Tim 1250	Sav	Ros	Smi	Fir	2460
Wachusett S	2400	152	34x5	34x5	Con 8R	3⅝x4½	27.3	L	PC	Non	G&O	Zen	V	Bos	Bos	B-L	D	B-L 30	U	3	Har	Tim 5511	W	¾	5.50	22.5	A	Sal 350	She	Gem	.....	Fir	3300
Wilcox AA	1900	130	35x5‡	35x5‡	Bud WTU	3¾x5⅛	22.5	L	PC	Dup	.....	Str	V	Bos	Wes‡	B-L	D	B-L 30	U	3	Spi	Rus 3600-B	W	½	7.70	25.8	A	Shu 350	She	Gem	.....	Fir	3600
Yellow Cab T1	1350	130	33x5*	33x5*	Con V4	3¾x5	22.5	L	PS	Non	Lon	Zen	V	Bos	N-E	B-L	D	B-L 35	U	4	Spi	Tim 5516	B	½	5.37	17.3	B	Tim1341DGO	Mar	Gem	Mat	Fir	3130
Yellow Cab T-1-5	1500	150	33x5	33x5	Con V4	3¾x5	22.5	L	PS	Non	Lon	Zen	V	Bos	N-E	B-L	D	B-L 35	U	4	Spi	Tim 5516	B	½	5.37	17.3	B	Tim1341DGO	Mar	Gem	Mat	Fir	3210
1¼ Ton																																			
Autocar F	2200	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
Autocar G	2300	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Clinton 20	2070	150	30x5*	30x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Own	Zen	V	.....	Bos	B-L	D	B-L 30	U	3	Spi	Tim 6258	W	½	6.25	20.0	A	Tim 1250	Per	Ros	StM	Fir	3450
Clydesdale 10	....	138	34x5*	34x5*	Con N	3¾x5	22.5	L	PS	Non	Own	Zen	V	Bos	Bos	B&B	P	B-L 20	U	3	Spi	Tim 5511	B	½	6.10	20.4	A	Std 3780	Sta	Ros	.....	Fir	3100
Clydesdale 10A	....	138	34x5*	34x5*	Con N	3¾x5	22.5	L	PS	Non	Own	Zen	V	Bos	Bos	B&B	P	B-L 20	U	3	Spi	Tim 5511	W	½	6.75	22.5	A	Std 3780	Sta	Ros	.....	Fir	3100
Commerce 7	....	145	34x5	34x5	Con S4	4¼x4½	28.9	L	FP	Non	Lon	Zen	V	Bos	Bos	Ful	D	Ful SU12	U	3	U-M	Sal 1481	B	⅜	5.85	23.4	A	Sal 1415	Amc	Ros	Smi	Fir	3575
Defiance G-2	....	128	35x5*	35x5*	Con J4	3¾x5	22.5	L	PS	Pie	Chi	Zen	V	Bos	Bos	Ful	D	Ful	U	3	Har	Eat 1000	B	½	6.14	24.5	A	Col 7000	Det	Lav	StM	Fir	2900
§Defiance GL-2	....	140	35x5*	35x5*	Con J4	3¾x5	22.5	L	PS	Pie	Chi	Zen	V	Bos	Bos	Ful	D	Ful	U	3	Har	Eat 1000	B	½	6.14	24.5	A	Col 7000	Det	Lav	StM	Fir	3050
Diamond T 0	1975	132	36x3½‡	36x4‡	Hin 700	3¾x5¼	22.5	L	PC	Non	G&O	Str	V	Bos	Non	Cov	D	Cov JUC	U	3	Spi	Own 800GD	W	½	6.20	26.0	A	Own 510	Mat	Gem	.....	.....	3850
Diamond T 0	1875	134	34x5*	34x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Opt	Own	Zen	G	Eis	Bos‡	Cov	D	Cov C	U	3	M-E	Tor 1000	I	D	6.60	24.0	A	Col 5000	Cha	Ros	Std	Fir	3800
Eagle 101	.....	129	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Zen	G	Con	A-L	Mun	D	.....	U	3	Spi	Own Sal 1483	B	¾	5.75	23.0	B	Sal	Per	Ros	Day	Fir	2370
§Gramm-Bernstein 10	....	140	34x5*	34x5*	Con J4	3¾x5	22.0	L	PC	Own	Own	Zen	V	Bos	Bos‡	B-L	D	B-L 30	U	3	Spi	Tim 6250	W	½	6.25	21.0	A	Tim 1250	Mat	Ros	Van	Fir	3230
Krebs J-24	....	132	34x5*	34x5*	Con 8R-6	3⅝x4½	27.3	L	PC	Opt	Fed	Zen	G	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Sal 148OE	B	¾	5.85	27.6	A	Sal D	She	Gem	Ind	Fir	3350
§Larrabee-Deyo X-2	1810	138	34x5*	34x5*	Con 8R	3⅝x4½	27.3	L	PC	Non	Own	Zen	G	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Sal 1526E	B	¾	5.85	28.0	A	Sal 1525E	Row	Ros	Van	Gdy	3400
Maccar EX	....	132	34x5*	34x5*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	G	Wes	Wes	Ful	D	Ful LTU8	U	3	Spi	Tim 5511	B	½	5.50	22.0	A	Tim	Det	Ros	StM	Fir	3200
Master 11	....	132	33x5*	33x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Chi	Zen	V	Eis	Bos	Det	D	Cot AAU	U	3	Spi	Wis	W	½	7.75	28.5	A	Shu	Tut	Ros	Std	Fir	3525
Menominee HT	2000	130	34x3½‡	36x5‡	Wis SU	4 x5	25.6	H	PC	Mon	Own	Zen	V	Eis	Bos	Det	D	Cot AAU	U	3	Spi	.....	B	...	.....	.....	...	.....	.....	Ros	.....	.....	2800
Northway Sp	1290	.....	.....	.....	Rut	3⅛x5	23.4	L	...	Non	Own	Zen	...	Bos	Bos	B&B	...	Dur	U	3	.....	.....	S	...	.....	.....	...	.....	.....	Pen	Own	Mot	Fir	2705
§Reo F	1185	128	33x5*	33x5*	Own F	4½x4½	27.2	D	PS	Non	Own	Joh	G	N-E	N-E	Own	D	Own	A	3	Own	Own	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Republic	....	124	33x5*	33x5*	Lyc C	3¾x5	22.5	L	PC	Non	Own	Str	V	Bos	Bos	Ful	D	Ful	U	3	Spi	Tor	I	D	5.65	22.6	A	Tor	Mat	Jac	Nor	Fir	2700
§Ruggles 20R	....	128	34x5*	34x5*	Own 20R	4 x5	25.6	L	FP	Non	Per	Zen	G	Rem	Rem	B-L	D	B-L 30	U	3	Spi	Col 52000	B	¾	5.12	20.4	A	Col 5000	Det	Jac	Nor	Fir	2800
Selden Pacemaker	1575	144	34x5	34x5	Her O	4 x5	25.6	L	PC	Non	Own	Str	G	Bos	B-L	B-L	D	B-L 31	U	3	.....	Col 52027	B	F	.....	.....	A	Col 5086	.....	.....	Van	.....	3580
Selden Pacemaker	1725	144	34x5*	34x5*	Con 8R	3⅝x4½	27.2	L	PC	Non	Own	Str	G	Bos	Bos	B-L	D	B-L 31	U	3	.....	Col 52027	B	F	.....	.....	A	Col 5086	.....	.....	Van	.....	3580
§Service 25	....	132	34x5*	34x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Lon	Zen	V	Rem	Rem	B-L	P	B-L 30	U	3	M-E	Eat 1000	B	½	5.62	22.6	A	Shu 312	She	Ros	Bim	Fir	3500
§Standard 75	....	134	34x5	34x5	Con N	3¾x5	22.5	L	PS	Non	Lon	Str	V	Eis	Bos‡	B-L	D	B-L 30	U	3	Spi	Tim 6250	W	½	5.60	24.3	A	Tim 1250	Am	Ros	StM	Fir	3000
§U. S. U	....	138	34x5*	34x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Lon	Str	V	Bos	Bos	Ful	D	Ful SUI	U	3	Blo	Cla B	B	½	6.25	25.0	A	Shu 250	She	Lav	Sch	Fir	3400
United 25	....	131	30x5	30x5	Her OX	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Bos	B-L	D	B-L 30	U	3	Blo	Col 52025	B	¾	5.80	23.7	A	Shu 310	Det	Lav	.....	Fir	2910
1½ Ton																																			
§Acme 20L	....	136	34x5*	34x5*	Con 8R	3⅝x4½	27.3	L	PC	Non	G&O	Zen	V	Bos	Bos‡	B-L	P	B-L	U	3	Blo	Tim 6258	W	½	6.25	30.0	A	Tim 1452	Det	Ros	Bim	Fir	3500
§Armleder 30	....	148	34x4‡	34x6‡	Her OX	4 x5	25.6	L	PC	Non	Own	Zen	V	Bos	Bos‡	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	7.25	39.0	A	Tim 1468	She	Ros	StM	Fir	4400
Atterbury 24R	2450	150	34x4‡	34x6*	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	¾	6.50	31.2	A	Tim 1460	S.P	Gem	Arc	Fir	4750
§Autocar F	2200	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
§Autocar G	2300	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Available JH	....	145	36x3½‡	36x5‡	Her 0	4 x5	25.6	L	PC	Pie	Chi	Zen	G	Bos	Bos‡	B-L	D	B-L 30	U	3	M-E	Tim 6460	W	½	7.00	28.0	A	Tim	Tut	Ros	Sch	.....	4000
Bessemer H2	....	144	36x3½	36x5	Con N	3¾x5	22.5	L	PS	Non	Stn	Str	G	Bos	Bij	B&B	P	B-L 35	A	3	Blo	Wis	R	½	.....	.....	A	Shu 350	Per	Ros	Sch	Fir	3800
Bridgeport A	2350	144	34x4‡	34x6‡	Bud WTU	3¾x5⅛	22.5	L	PC	Non	G&O	Zen	V	Eis	Bos	B-L	D	B-L 30	U	3	Spi	Tim 6460	W	½	.....	.....	A	Shu 350	.....	Ros	Jon	.....	3000
Brinton C	2500	138	34x4	34x5	Con N	3¾x5	22.5	L	PS	Non	Bus	Str	G	Bos	Non	B-L	D	B-L	U	3	Spi	Tim 6560	W	¾	.....	33.6	...	Tim 1542	Tut	Ros	Sch	.....	3900
Brockway S12	....	140	36x4‡	36x6‡	Wis SU	4 x5	25.6	H	PC	Han	Bus	Zen	V	Eis	L-N‡	B-L	D	B-L 30	U	3	Spi	Tim 6462	W	½	7.75	31.2	A	Tim 1460	Row	Gem	.....	.....	4000
§Chicago 20	....	146	36x4‡	36x7‡	Her 0	4 x5	25.6	L	PC	Non	Bre	Zen	G	Bos	Bos†	B-L	D	B-L 31	U	3	Pet	Tim 6460	W	F	7.36	34.0	A	Tim 1526	Mat	Gem	Opt	Fir	4500
Columbia H	2175	140	34x4	34x6	Hin 300	3¾x5¼	22.5	L	PC	Hin	Lon	Str	V	Spl	Bos	Det	D	D-G	U	3	Spi	Vul	W	F	7.50	.....	...	Shu	Det	Own	StM	.....	3800
§Commerce 14B	....	146	32x6	32x6	Con J-4	3¾x5	22.5	L	FP	Non	Lon	Zen	V	Eis	Bos	B-L	D	B-L	A	4	U-M	Tim 6462	W	¾	7.20	37.4	A	Tim 1460	Amc	Ros	Mot	Fir	4135
Corbitt D-22	2150	140	34x3½‡	34x5‡	Con J-4	3¾x5	22.5	L	FP	Sim	MeC	Str	V	Eis	Bos‡	B-L	D	B-L 30	U	3	Spi	She W-103	W	½	7.80	25.9	A	She D343	She	Ros	Bim	Fir	4150
Day-Elder AN	....	128	34x3½‡	34x4‡	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 20	U	3	Spi	Tim 6258	W	½	6.25	20.7	A	Col 7018	She	Gem	Van	Fir	3600
Defiance D-2	....	140	35x5*	36x6*	Cont J4	3¾x5	22.5	L	PS	Pie	Chi	Zen	V	Bos	Bos	Ful	D	Ful	U	3	Har	Wis 66	W	½	7.10	33.6	A	Col 7000	Det	Lav	StM	Fir	3200
DeMartini	....	150	34x4	34x6	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Own	Zen	V	Bos	Non	B-L	D	B-L 35	U	4	Spi	.....	W	½	6.50	.....	...	.....	.....	She	Ros	Smi	.....	5000
Diamond T-T	2450	144	36x3½	36x5	Hin 700	3¾x5¼	22.5	L	PC	Own	G&O	Str	V	Bos	Non	Cov	D	Cov JUC	U	3	Spi	Own	W	½	8.20	29.9	A	Tim 1452	Mat	Gem	.....	.....	4050
Diehl B	....	120	.....	.....	H-S 7000	3½x5	19.6	L	PS	Non	.....	Zen	G	Bos	Non	M-E	P	Dur O2500B	U	3	M-E	Tor S327	I	D	5.30	.....	...	Sal 1544E	Row	Ros	Way	Non	2500
Diehl B	2650	145	36x3	36x6	Con J-4	3¾x5	22.5	L	FP	Pie	G&O	Zen	G	Bos	Non	Ful	D	Ful GU-8	U	4	Har	Tim 6460	W	F	Opt	Opt	A	Tim 1520	S.P	Ros	StM	.....	4300
Dixon D	....	138	35x5*	36x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Mod	Zen	G	Wes	Wes	Cov	D	Cov	U	3	Pet	She	W	½	6.50	26.0	A	She	Pen	Woh	Mot	Fir	3900
Duplex GH	....	144	36x3½‡	36x5‡	Con J-4	3¾x5	22.5	L	FP	Non	Own	Zen	V	Eis	Rem†	B&B	P	Own S23	A	4	Pet	Tim 6460	W	½	7.25	36.2	A	Own S-23	.....	Gem	.....	.....	3900
Federal S-23	....	144	36x3½‡	36x5‡	Bud CTU	3¾x5¼	22.5	L	PC	Pie	Hoo	Zen	V	Spl	Opt	B&B	P	Own FP	A	3	Own	Own D-2	W	½	7.25	32.5	B	Own FTT	Tut	Ros	Std	.....	3350
Front Drive FT	2800	120	36x6	36x6‡	Bud CTU	3¾x5¼	22.5	L	PC	Non	Own	Zen	V	A-L	A-L	Own	D	Own	A	3	Spi	Tim 6462	W	½	7.25	32.5	B	Own	Per	Ros	.....	Fir	4450
Garford 30	....	144	32x6*	32x6*	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	V	A-L	A-L	Own	D	Ful TU-3	U	3	Blo	Tim 6462	W	½	6.00	24.0	A	Own	Det	Ros	Pru	Gdy	4500
§Gary G15	2590	144	36x3½	36x7	Bud KBUI	4 x5¼	25.6	L	PC	Non	McC	Zen	V	Bos	Rem	B-L	D	B-L 30	U	3	Spi	Tim 6258	W	½	7.75	23.7	A	Tim 1520	Det	Ros	Van	Fir	3500
Gotfredson 30	1995	144	36x6*	36x6	Bud WTU	3¾x5⅛	22.5	L	PC	Non	McC	Chi	Str	V	Eis	Non	Ful	D	Ful TU-3	U	3	Blo	Tim 6462	W	½	5.60	16.8	A	Tim 1250	Amc	Gem	Van	Fir	3500
Graham Bros EA	1325	118°	33x4½*	36x6*	Dod 4	3⅞x4½	24.1	L	PC	Non	McC	Ste	V	Bos	Rem	B-L	D	B-L 30	U	3	Spi	Tim 6258	W	½	6.25	26.2	A	Dod A	Det	Dod	Kel	Fir	2830
§Gramm-Bernstein 115	....	138	34x5*	36x6*	Lyc	4 x5	25.6	L	PC	Non	Own	Str	G	N-E	N-E	Ful	D	Dod 4	U	3	U-P	Own D-360	S	½	6.28	26.2	A	Dod A	Det	Dod	Kel	Fir	2830
Gramm-Bernstein 65	2550	138	36x3½‡	36x5‡	Con J-4	3¾x5	22.5	L	FC	Non	Own	Str	G	N-E	N-E	Ful	D	Ful	U	3	Own	Own 602-8	W	½	7.80	28.0	A	Col	Per	Ros	Bim	Fir	3660
Grass Premier 45	1550	140°	32x4½	32x6*	Lyc CT	3¾x5	25.5	L	PC	Opt	Chi	Str	V	Opt	Bos	B-L	D	B-L	A	3	Own	Own 602-8	W	½	7.80	28.0	A	Col	Per	Ros	Bim	Fir	3860
Guilder D	2450	132	34x3½	34x6	Wau Y	4 x5¼	25.6	L	PC	Pie	G&O	Zen	G	Eis	Bos	B-L	D	B-L 31	A	3	Own	Own 602-8	W	½	7.80	28.0	A	Col	Per	Ros	Bim	Fir	3860
G. W. W. Super	1650	142	35x5*	35x5*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	G	Bos	Bos	Ful	D	Ful	U	3	Spi	Cla B360	S	½	6.28	31.3	A	Sal	Det	Ros	StM	Fir	3000
Hawkeye K	1900	149	34x5*	38x7*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	.....	Zen	V	Bos	Bos	Ful	D	Ful	U	3	M-E	Wis DD	B	½	5.50	26.0	...	Shu 5410	Mer	Ros	Van	Non	3200
Independent GW	2150	142	36x4	36x6	Con J-4	3¾x5	22.5	L	FP	Non	G&O	Zen	V	Bos	Non	Ful	D	Ful GU	U	4	Blo	She W103	W	D	8.66	.....	...	Shu	Tut	Lav	StM	Fir	3875
Kissel	1585	140	34x5*	34x4½*	Wau X	3½x4½	19.6	L	PC	Non	Own	Zen	G	Spl	Dyn	B&B	P	Det KY400	U	3	Spi	Col 5200	S	½	4.58	18.3	A	Col 52000	Per	Lav	Std	Fir	3335
Luedinghaus	1650	132	34x5*	34x5*	Wis SU	4x5	25.6	H	PC	Non	Per	Zen	G	Eis	Bos	B&B	P	D-G D-Y	U	3	Pet	Tim 5512	B	½	5.37	22.0	A	Tim 1250	U-S	Ros	Own	Gdy	3850
§Menominee	1875	130	34x5*	34x5*	Her OBX	4x5	25.6	L	PC	Non	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 5512	B	½	5.37	22.0	A	Tim 1250	U-S	Ros	Own	Gdy	3850
Moreland R-R	2280	180	32x6*	32x6*	Her OBX	4 x5	25.6	L	PN	nonC	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 5512	B	½	5.37	22.0	A	Tim 1250	U-S	Ros	Own	Gdy	3850
Moreland RC	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

For full name and address of manufacturer and information regarding complete line see page 43

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System: Carburetor (Make)	Engine: Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
1½ Ton—Con'd																																	
§Indiana 11A	....	114	30x5*	34x7*	Her OX	4 x5	25.6	L	PC	Non	Lon	Str	G	Eis	Non	B&B	P	B-L 31	U	3	Blo	She W-1501	W	½	6.50	31.2	A	Sal-D	She	Ros	Bim	Fir	3600
Indiana 15	....	145°	34x3½	34x6	Her OX	4 x5	25.6	L	PC	Non	Lon	Str	G	Eis	A-L‡	B&B	P	B-L 35	A	3	Spi	She W-1501	W	½	7.80	31.2	A	She 33FA500	Bea	Ros	Bim	.....	4113
International 33	....	128	36x4	36x6	Own 33	3⅜x5	22.5	L	SP	Own	Own	Own	G	RBo	Non	Own	D	Own 33	A	3	Own	Own	I	D	8.00	32.5	A	Own 33	.....	Own	Own	.....	4070
Kearns N	1650	136	34x4	34x6	H-S 7000	3½x5	19.6	L	PS	Non	Own	Zen	G	Bos	Dyn	Ful	D	Ful LTU5	U	3	M-E	Tor A	I	...	7.60	30.0	A	She 33FA	She	Lav	.....	Fir	3000
Kelly-Springfield K70	2900	150	36x4	36x7	Con K-4	4 1/16x5¼	27 2	L	FP	Pie	Own	Zen	G	Eis	Del	B&B	D	B-L 51	A	4	Spi	Own	W	½	6 80	36.4	A	Own	Mat	Ros	StM	Non	5887
King Zeitler	2375	140°	34x4‡	34x6‡	Con J-4	3¾x5	22.5	L	FP	Pha	Chi	Str	G	Eis	Bos‡	B-L	D	B-L 31	U	3	Pic	Tim 6462	W	½	7.75	37.2	A	Tim 1526	Mar	Gem	Bim	Fir	4300
Kissel	1975	152	36x3½‡	36x6‡	Own 40000	3 7/16x5½	24.1	L	SP	Pie	McC	Str	V	Eis	Rem‡	W-G	D	W-G T-38L	U	3	Spi	Tim 6462	W	½	7.80	28.5	A	Tim 1526	Mat	Jac	Pru	Std	4100
Kleiber	2600	147	36x4‡	36x7‡	Con K4	4 1/16x5¼	27.2	L	FP	Non	R-T	Str	V	RBo	Non	B-L	D	B-L 50	A	4	Spi	Tim 6460	W	½	7.75	41.5	A	Tim 1540	Bet	Ros	Smi	.....	4300
Lange 1½	2950	145°	34x4‡	34x6‡	Con J4	3⅜x5	22.5	L	FP	Non	Own	Str	V	Apo	Wes	B-L	D	B-L 35	U	4	Pet	Tim 6462A	W	½	8.75	46.8	A	Tim 1526	S.P	Ros	Hoo	Opt	4600
Larabee XH	3200	168	34x7	34x7	Con 6B	3¾x5	22.5	L	FP	Non	Own	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	She W-1501	W	½	6.50	26.7	A	She 33FA	She	Ros	Smi	Fir	4450
§Larrabee XJ	2950	168	36x6	36x6‡	Con 8R-6	3⅜x4½	27.3	L	PC	Opt	Fed	Zen	G	Bos	Bos	B-L	D	B-L 31	U	3	Spi	She W-1501	W	½	7.80	37.3	A	She 33FA	She	Ros	Smi	Fir	4200
Luedinghaus	....	144°	34x3½‡	34x5‡	Wau Y	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Spl	Dyn‡	B&B	P	Det	U	3	Spi	Wis 800H	W	½	.....	.....	A	Shu 510	.....	Lav	.....	.....	4500
§Mack AB	3000	146½	36x4‡	36x3½‡	Own AB	4 x5	25.6	L	PS	Own	Own	Zen	G	Spl	Non	Own	D	Own AB	U	4	Spi	Own AB	C	D	*6 99	33.8*	B	Own AB	Mer	Own	.....	.....	5200
Mack AB	3450	146½	36x4‡	36x3½‡	Own AB	4 x5	25.6	L	PS	Own	Own	Zen	G	Spl	Non	Own	D	Own AB	U	4	Spi	Own AB	R	F	*7.60	36.8*	B	Own AB	Mer	Own	.....	.....	5690
§Mason Road King	1495	130	34x5*	34x5*	Her 0	4 x5	25.6	L	PC	Non	Fed	Zen	G	A-L	A-L	B&B	D	W-G Spec	A	3	Spi	Fli Spec	B	F	5.50	19.3	...	Fli Spec	Arm	Lav	Bud	Fir	3320
Master 21	2290	142	34x4	34x6	Bud GBU	4 x5¼	25.6	L	PC	Pie	Thi	Zen	V	Eis	Non	Ful	B	Ful LTU8	U	3	Spi	Tim 6460	W	½	8.25	30.3	A	She 550	Det	Ros	Pru	.....	4300
Menominee H	2475	144	36x3½‡	36x5‡	Wis SU	4 x5	25.6	H	PC	Mon	Own	Zen	V	Eis	Bos	Det	D	Cot AAU	U	3	Spi	Wis 800H	W	½	8.25	30.3	A	Shu 510	Tut	Ros	Std	Fir	4220
Moreland BX	2275	132	36x3½‡	36x6‡	Her OBX	4 x5	25.6	L	PC	Non	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 6461	W	½	7.00	28.0	A	Tim 1460	U.S	Ros	Smi	.....	4125
Nel'n-LeM'nGP1-1½	....	Opt	36x4	36x6	Con S-4	4¼x4½	28.9	L	FP	Pha	Chi	Str	G	Bos	Bos‡	B-L	D	B-L 35	U	3	Spi	Tim 6258	W	½	7.00	.....	A	Tim 1542	Tut	Ros	StM	Gdy	3400
§Noble A-21	2200	144	34x5*	36x6*	Bud WTU	3¾x5½	22.5	L	PC	Non	Own	Zen	V	Eis	Bos	Ful	D	Ful LTU5	U	3	Blo	She 1501	W	½	6.50	26.0	R	She 33FA	....	Ros	Bim	Fir	3800
O. K.	1750	149	36x3½	36x5	Bud CTU	3¾x5¼	22.5	L	PC	Non	Own	Zen	V	Eis	Non	Ful	D	Ful LTU3	U	3	Har	Wis 800H	W	½	9.33	.....	...	Shu 510	Tut	Ros	Bim	Gdy	4100
Ogden D2	....	136	36x3½	36x5	Con J-4	3¾x5	22.5	L	FP	Pha	Chi	Zen	V	Spl	Bos	B-L	D	B-L	U	3	Pic	Tim 6462	W	½	7.75	25.8	A	Tim	Tut	Ros	Std	Non	3400
Parker E-24	2150	140°	34x3½	34x6	Wis SU	4 x5	25.6	H	PC	Non	Own	Str	V	Wes	Wes	Ful	D	Ful SU2	U	3	Blo	Wis 800-HA	W	½	7.25	29.8	A	Con 2001	Tut	Lav	Bim	Non	3700
Power	....	136	35x5	35x5	Hin	3¾x5¼	22.5	L	PC	Non	Mod	Str	V	Eis	Wes	B-L	D	B-L 31	U	3	Pet	Tim 6460	W	½	5.00	.....	...	Tim 1520	Pen	Ros	StM	Fir	3250
Rainier R36	2590	147	34x3½‡	34x5‡	Con J-4	3¾x5	22.5	L	FP	Pie	E-M	Zen	V	Eis	Del‡	B-L	D	B-L 30	U	3	Spi	Tim 6462	W	½	7.75	25.8	A	Tim 1526	She	Ros	Jon	.....	2900
Republic 10F	....	146	34x4	34x5	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Str	V	Bos	Bos	Ful	D	Ful	U	3	Spi	Tor	I	D	6.28	25.0	A	Tor	Mat	Jac	Nor	Fir	3400
§Ruggles 21	....	150	30x5*	32x6*	Own	4 x5	25.6	L	...	Non	Per	.....	G	Rem	Rem	B-L	D	B-L 30	U	3	Spi	Col 52000	S	¾	.....	.....	...	Col 5000	.....	Jax	Nor	Fir	3000
§Ruggles 21	....	150	30x5*	32x6*	Own	4 x5	25.6	L	...	Non	Per	.....	G	Rem	Rem	B-L	D	Ful LTU 5	U	3	Blo	She 1501W	W	½	7.80	.....	A	Shu 510	.....	Gem	.....	.....	4050
§Rumely A	2150	144	36x3½‡	36x5‡	Bud CTU	3¾x5¼	22.5	L	PC	Pie	Mod	Str	G	Eis	Bos‡	Ful	D	Ful LTU 5	U	3	Spi	She 1501W	W	½	7.75	.....	...	.....	.....	Ros	Opt	Fir	3595
Sandow	1895	138	34x4	34x6	Bud WTU	3¼x5½	16.9	L	PS	Non	Chi	Str	V	Eis	Non	Ful	D	Ful TU¾	U	3	Spi	She 1501	W	½	6.50	26.6	A	She 33FA	She	Gem	Van	Fir	5170
Sanford W-15	2150	140	36x6	36x6	Con-8R-6	3⅜x4½	27.3	L	PS	Non	R-T	Str	G	Con	Dyn‡	Ful	D	Ful	U	3	Spi	Wis 60D	R	½	7.00	33.6	A	Shu 510	She	Ros	.....	.....	4500
Schacht H	2500	144	36x3½‡	36x7‡	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	.....	Non	Ful	D	Ful GU7	U	4	Blo	Tim 6460	W	½	7.00	23.3	A	Tim 1 52	Per	Lav	Are	.....	4250
Selden 30	2375	137	34x3½‡	34x5‡	Con J-4	3¾x5	22.5	L	FP	Non	Lon	Str	G	Eis	N-E‡	B-L	D	B-L 30	U	3	Spi	Tim 6462	W	½	7.20	38.5	A	Shu 350	She	Ros	Int	.....	4695
Service 33	....	146	34x3½‡	34x6‡	Bud GBU-1	4 x5¼	25.6	L	PC	Non	McC	Str	V	Eis	Rem‡	B&B	P	B-L 35	A	4	Spi	Tim 6352	W	½	6.1	23.0	A	Shu 312	She	Ros	Bim	Fir	3650
Service 25C	....	Opt	30x5*	32x6	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Lon	Zen	V	Eis	Non	B-L	P	B-L 30	U	3	Blo	Eat 1500	B	½	6.1	23.0	A	Shu 312	Ame	Ros	.....	.....	3466
Standard 1½K	....	144	34x3½*	34x5*	Con J-4	3¾x5	22.5	L	PS	Sim	Lon	Str	V	Eis	Bos‡	B-L	D	B-L 30	U	3	Spi	Tim 6352	W	½	7.20	31.3	A	Tim 1452	Ame	Ros	.....	.....	3466
§Sterling 1½	3345	142	36x3½	36x5	Own	4 x5¾	25.6	L	PC	Wau	Own	Zen	V	Eis	Bos	B-L	D	B-L 35	U	3	Spi	Tim 6462	W	½	6.50	34.8	A	Tim 1460	Mat	Ros	Hoo	Non	4780
Stewart 17	1595	145	34x5*	34x5*	Lyc C	4 x5	25.6	L	PC	Non	Own	Zen	G	Rem	Rem	Ful	D	Ful LTU4	U	3	Spi	Cla 1-D	B	¾	6.28	25.1	B	Col 7003	Det	.....	.....	Fir	3200
Traffic	1750	128	35x5*	35x5*	Con N-4	3¾x5	22.5	L	FP	Non	Own	Car	G	Bos	G-D	Cov	D	Cov MUNC	U	3	The	Rus 34-I	I	D	6.15	22.5	A	Own	Det	Own	Day	Fir	3400
Transport 26	....	140	34x3½‡	34x5‡	Bud WTU	3¾x5½	22.5	L	PC	Non	Mod	Zen	V	Eis	Rem‡	Ful	D	Ful SU-1	U	3	Har	Cla I-D	I	D	7.25	29.0	A	Col 4000	Det	Jac	Mot	.....	3800
Traylor B	2390	140	34x3½*	34x6*	Bud WTU	3¾x5½	22.5	L	PC	Non	G&O	Zen	G	Spl	Wes†	Cov	D	Cov MUSC	U	3	M-E	She W-1501	W	½	7.80	28.0	A	She 33FA	Mer	Ros	Sch	.....	4300
§Triangle A	1985	144	34x3½*	34x6*	Wau BUX	3¾x5¼	22.5	L	PC	Wau	Per	Str	G	Eis	Eis‡	Ful	D	Ful LTU5	U	3	Blo	Cla I-D	I	D	7.25	29.0	B	Col 7007	Det	Gem	Roy	Fir	3750
§Union E	2250	150	34x7*	34x7*	Con 6M	3⅜x4½	27.3	L	PC	Non	Per	Zen	G	Bos	Bos	B-L	D	Ful GU-7	U	4	Blo	Cla B360	S	...	.....	.....	B	Shu 5410	Mat	Jax	Ind	Fir	4420
§Union 30	....	148	34x5*	34x5*	Her OX	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Bos	B-L	D	B-L 30	U	3	Blo	Col 52025	B	¾	5.80	23.7	A	Shu 310	Det	Lav	.....	Fir	2940
United 30	....	148	34x4	34x7	Her OX	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Bos	B-L	D	B-L 30	U	3	Blo	Wis 40	R	½	6.00	24.5	A	Shu 310	Det	Lav	.....	Fir	3740
United 32	....	148	34x4	34x7	Her OX	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Bos	B-L	D	B-L 30	U	3	Blo	Wis 40	R	½	6.00	24.5	A	Shu 310	Det	Lav	.....	Fir	3740
§U S N	....	144	36x3½*	36x6*	Bud	3¾x5½	22.5	L	PS	Non	Lon	Str	V	Bos	Bos	B-L	D	B-L 35	U	3	Spi	Cla I-D	I	D	7.60	30.4	A	Shu 350	She	Lav	Sch	.....	3800
Wachusett J	2800	148	36x6	36x6	Con J4	3¾x5	22.5	L	FP	Non	G&O	Zen	V	Bos	Bos	Ful	D	Ful LTU4	U	3	Blo	Tim 6352	W	¾	7.20	38.5	...	Tim 1452	Sav	Ros	Smi	Fir	3300
Walker-Johnson L	2500	137	34x5*	36x6*	Hin 300	3¾x5¼	22.5	L	PC	Hin	Bus	Zen	V	Bos	Bos	B-L	D	B-L 35	U	3	Har	Tim 6352	W	½	7.20	26.0	A	Shu 350	S.P	Ros	Are	Fir	3600
Wilcox BB	2550	135	36x4	36x5†	Own BD	4¼x5	28.9	L	SP	Dup	.....	Str	G	Bos	Wes	Own	D	Own Q	A	4	Own	Wal 2A	R	½	8.25	29.9	B	Shu 550	She	Own	.....	Non	4600
Wisconsin B	1850	136	33x5	32x6	Wau Y	4 x5¼	25.6	L	PC	Pha	Chi	Str	V	Opt	Bos	B-L	D	B-L 31	U	3	Spi	Tim 5511	W	½	6.25	31 5	A	Tim	Det	Ros	Bim	Gdy	3200
Witt-Will N	2450	144	36x3½	36x6	Con C-4	4 1/16x5¼	27.2	L	PC	Pie	Own	Zen	G	Eis	Non	B-L	D	B-L 35	U	3	Spi	Tim 6460	W	½	7.00	30.3	A	Tim 1520	She	Ros	Are	Fir	4000
2 Ton																																	
Acme 40	....	141	34x3½‡	34x5‡	Con J4	3¾x5	22.5	L	FP	Dup	G&O	Zen	V	Eis	Del‡	B&B	P	Cot AAU	U	3	Blo	Tim 6460	W	½	8.75	35.0	A	Tim 1520	Det	Ros	Bim	.....	3980
Acme 40-L	....	147	34x3½‡	34x5‡	Con K-4	4 1/16x5¼	27.2	L	FP	Dup	G&O	Zen	V	Eis	Del‡	B&B	P	Cot RU	U	4	Blo	Tim 6460	W	½	7.00	36.4	A	Tim 1520	Det	Ros	Bim	.....	4583
Autocar F	2200	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
Autocar G	2300	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	L-N†	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
§Autocar H	3450	114	34x5‡	36x8‡	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5500
§Autocar K	3550	138	34x5‡	36x8‡	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5600
Available JH-2	....	152	36x4	36x6	Her 0	4 x5	25.6	L	PC	Pie	Chi	Zen	V	Bos	Bos‡	B-L	D	B-L 30	U	3	Spi	Tim 6560	W	F	7.75	31.0	A	Tim	Tut	Ros	Sch	Non	4400
§Bethlehem GN	2495	137½	36x4	36x7	Own GN	4 x5¼	25.6	L	PC	Pie	Bus	Zen	V	Bos	G&D	B&B	P	D-G C	U	3	Spi	Wis 60A	R	½	7.75	24.8	...	She 33FA 500	Mat	Lav	Smi	Fir	4100
Buffalo 9&10	2750	140	34x5‡	36x8‡	Her 0	4 x5	25.6	L	PC	Pie	Own	Str	V	Bos	Bos	Cov	D	Cov	U	3	Spi	She W-103	W	½	7.75	.....	...	She D 370	She	Ros	Jon	Gdy	5400
§Clinton 45	2840	163	34x4‡	34x4‡	Bud GTU	4 x5¼	25.6	L	PC	Han	Own	Zen	G	.....	Non	B-L	D	B-L 35	A	4	M-E	Tim 6462	W	½	7.75	41.5	A	Tim 1520	Per	Ros	StM	.....	4875
Concord G	3250	140	36x4‡	36x4‡	Bud GBU	4 x5½	25.6	L	PC	Pie	Own	Zen	V	Eis	Non	B-L	D	B-L 35	U	4	Spi	Tim 6560	W	½	9.25	49.4	...	Tim 1544	.....	Ros	Are	Fir	4150
Concord H	3700	150	36x4‡	36x4‡	Bud EBU	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Eis	Wes	B-L	D	B-L 50	U	4	Spi	Tim 6460	W	½	6.75	36.1	...	Tim 1520	.....	Ros	Are	Fir	4250
Corbitt C	2750	148	36x4‡	36x7‡	Con K-4	4 1/16x5¼	27.2	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 35	U	3	Spi	She W-103	W	½	10.6	35.6	A	She 3FA10	She	Ros	Bim	Fir	5265
Day-Elder BN	....	144	34x3½*	34x5‡	Con J-4	3¾x5	22.5	L	FP	Non	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	7.25	28.6	A	She 3FA	She	Gem	Van	Fir	4100
Defiance E	....	140	35x5‡	38x7‡	Con J4	3¾x5	22.5	L	PS	Pie	Chi	Zen	V	Bos	Bos	Ful	D	Ful GU10	U	4	Spi	Wis 66	R	½	9.25	44.4	A	Col 7000	Det	Lav	.....	Fir	3965
Defiance EL2	....	157	36x5‡	38x7‡	Con J4	3¾x5	22.5	L	PS	Pie	Chi	Zen	V	Bos	Bos	Ful	D	Ful GU10	U	4	Spi	Wis 66	R	½	9.25	44.4	A	Col 7000	Det	Lav	.....	Fir	3965
	....	168	36x4	36x7	Bud HTU	4¼x5½	28.9	L	PC	Non	Own	Zen	V	Bos	Non	B-L	D	B-L 35	U	4	Spi	.....	W	½	6.50	26.0	A	.....	She	Ros	Smi	Non	6500
	....	168	36x4	36x7	Bud HTU	4¼x5½	28.9	L	PC	Non	Own	Zen	V	Eis	Non	Ful	D	Ful GU7	U	4	Har	Tim 6460	W	½	.....	.....	A	Tim 1520	S.P	Ros	.....	Fir	6500

Defiance EL2	157	36x5‡	38x7‡	Con J4	3¾x5	22.5	L	PS	Pie	Chi	Zen	V	Bos	Bos	Ful	D	Ful GU10	U	4	Spi	Wis 66	R	½	9.25	44.4	A	Col 7000	Det	Lav	....	Fir	3965
DeMartini	168	36x4	36x7	Bud HTU	4¼x5½	28.9	L	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 35	U	4	Spi	.....	W	....	6.50	26.0	....	.....	She	Ros	Smi	Non	6500
Dixon	145	.....	.....	Con J-4	3¾x5	22.5	L	FP	Pie	G&O	Zen	V	Eis	Bos	Ful	D	Ful GU7	U	4	Har	Tim 6460	W	½	.....	.....	A	Tim 1520	S.P	Ros	....	Fir	4450
Duplex A	145	34x4‡	36x7‡	Hin HAA	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Eis	Wes	Cov	D	Cov RU3C	U	3	Pet	She W-103	W	½	7 75	30.0	A	She 33FA	Pen	Ros	Mot	Fir	4400
Eagle 100	2275	130	34x4‡	34x7‡	Bud GTU	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Eis	Non	Cov	D	Cov MUC	U	3	M-E	Rus 6000-I	I	D	8.80	31.8	A	Col 7000	Cha	Lav	Std	Fir	4100
Eagle 104	2395	130	34x4‡	34x8	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Eis	Non	Cov	D	Cov MUC	U	3	M-E	Rus 6005-I	I	D	8.31	.....	A	Col 7000	Cha	Ros	StM	Fir	4300
Eagle 104	2395	130	34x4‡	34x8	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Spl	Spl	B-L	D	Own A	U	7	U-P	Tim 6460	W	½	5.60	59.7	A	Tim 1520	Mat	Ros	.....	Non	5500
Fageol 235	3300	136	34x4	34x7	Wau FU	4 x5⅝	25.6	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	.....	U	3	Har	.....	W	....	.....	.....	.....	.....	Own	Ros	Smi	Non	4735
Forschler D	....	144	34x4	36x7	Con C-4	4 1/8x5¼	27.2	L	PC	Dup	Own	Zen	G	Bos	Opt	Ful	D	.....	U	3	Spi	She W-103	W	½	8.66	.....	...	Col 7013	.....	Lav	Hoo	Non	4150
Fulton C	1985	137	34x4	34x7	Bud WTU	3¾x5½	22.5	L	PC	Non	G&O	Zen	G	Sim	Non	Cov	½	Cov MUC	U	3	Spi	Tim 6463	W	½	6.50	34.7	A	Tim 1460	Amc	Gem	M-M	Fir	....
Gotfredson 41	2475	146½	36x6*	40x8*	Bud KBUI	4 x5¼	25.6	L	PC	Non	McC	Zen	V	Bos	Rem	B&B	P	B-L 35	U	4	Spi	Tim 6460	W	½	8.25	41.6	...	Tim	Det	Ros	StM	Fir	4400
Grass–Premier 70	2750	140°	36x4‡	36x7	Wau Y	4 x5¼	27.2	L	PC	Opt	Chi	Str	V	Bos	Bos	B-L	D	B-L 51	U	4	M-E	Wis DD	W	F	7.75	41.0	....	Wis	Mer	Ros	Van	Non	5100
Guilder E	3250	152	36x4	36x8	Bud GTU	4 x5¼	25.6	L	PC	Pie	G-L	Zen	G	Eis	Bos	B-L	D	B-L 51	U	4	Blo	Cla 2D	I	D	8.00	38.4	...	Shu 350	G-C	Lav	Bim	Fir	4100
G.W.W	2250	147	36x6*	38x7*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	G	Eis	Rem‡	B&B	P	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	She	Woh	Bim	.....	5335
§Indiana 20	....	150°	36x4	36x7	Own 38	4 1/8x5½	27.2	L	PC	Pie	McC	Str	G	Eis	Rem‡	B&B	P	B-L 35	A	4	Spi	She W-103	W	½	9.00	53.1	B	Own 43	.....	Own	Own	.....	4790
International 43	....	130	36x4‡	36x7‡	Own 43	3¾ x5	22.5	L	SP	Own	Own	Own	G	RBo	Own	Own	D	Own 43	A	4	Spi	She W-103	W	½	7.75	31.0	A	She D343	She	Ros	Way	Fir	3400
Kearns N1	2200	136	34x4	34x7	Her O	4 x5	25.6	L	PC	Non	Own	Zen	G	Bos	A-L	Ful	D	Ful LTU	U	3	M-E	She W103	W	½	8.66	46.8	A	She D343	Tut	Ros	Smi	.....	4620
Kenworth M	3100	153	36x4	36x7	Bud KBU	4 x5¼	25.6	L	PC	Non	Own	Str	V	Bos	Bos‡	B-L	D	B-L 51	U	4	M-E	Wis 800I	W	½	8.60	45.0	A	Shu	Tut	Ros	Std	Fir	4870
Kimball AB	3435	Opt	36x4‡	36x8‡	Wis TAU	4 x6	25.6	L	PC	Non	Fle	Zen	V	Spl	Spl†	B-L	D	B-L 35	A	4	Pet	Tim 6460	W	½	6.50	34.7	A	Tim 1520	U.S	Ros	Smi	Fir	5250
															West																		
Maccar V1	....	163	36x4	36x7‡	Wis TAU	4 x6	25.6	L	PC	Pie	Own	Zen	V	Eis	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	8.75	46.8	A	Tim 1526	Row	Ros	Day	.....	4900
Maccar V-3	....	163°	36x4‡	36x7‡	Wis UAU	4¼x6	28.9	L	PC	Pie	Own	Zen	V	Eis	Bos‡	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	8.75	46.8	A	Tim 1522	Row	Ros	Day	.....	5300
§Mack AB	3300	146½	36x4‡	36x4‡	Own AB	4¼x5	28.9	L	PS	Own	Own	Str	G	Spl	Non	Own	D	Own AB	U	4	Spi	Own AB	C	D	*6.99	33.8*	B	Own AB	Mer	Own	.....	.....	5350
§Mack AB	3750	146½	36x4‡	36x4‡	Own AB	4¼x5	28.9	L	PS	Own	Own	Str	G	Spl	Non	Own	D	Own AB	U	4	Spi	Own AB	R	F	*7.60	36.8*	B	Own AB	Mer	Own	.....	.....	5800
§Mack AB	2875	144	36x4‡	36x8‡	Wis TAU	4 x6	25.6	L	PC	Mon	Own	Str	G	Eis	Bos‡	Det	D	Cot AU	U	4	Spi	Wis 800I	W	½	8.60	45.0	A	Shu	Tut	Ros	Std	Fir	4870
Menominee D	2875	144	36x4‡	36x8‡	Wis TAU	4 x6	25.6	L	PC	Mon	Own	Str	G	Eis	Bos‡	Det	D	Own 19C	A	4	Pet	Tim 6461	W	½	7.00	33.8	A	Tim 1452	U.S	Ros	Smi	.....	4980
Moreland EX	2950	150	36x4‡	36x7‡	Con K-4	4 1/8x5¼	27.3	L	FP	Non	Own	.....	V	Spl	A-L‡	Own	D	B-L 51	U	4	Pet	Tim 6414	W	½	6.00	29.0	...	Tim 1550	U.S	Ros	Bud	.....	4590
Moreland EC	3780	178	34x5*	34x5*	Con K-4	4 1/8x5¼	27.3	L	FP	Non	Own	.....	V	Spl	Opt	B-L	D	B-L 51	U	4	Own	Cla 2D	I	D	9.00	39.0	B	Own 3018	Har	Lav	A-W	.....	3850
§Nash	2150	144	34x4‡	34x7‡	Own 4	3¾x5¼	22.5	L	PS	Sim	.....	Str	G	Eis	A-L	B&B	P	D-G C	A	4	Own	Own 4017	I	D	8.50	42.3	B	Own 4017	Har	Lav	.....	.....	6250
Nash 4017	2750	124	36x6	36x6‡	Bud HU	4¼x5½	28.9	L	PC	.....	Bus	Zen	G	Bos	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6460	W	½	7.00	37.5	A	Tim 1520	Mat	Ros	Van	Fir	4000
National M	....	138	34x5*	36x6*	Wau Y	4 x5¼	25.6	L	FP	Non	Chi	Str	G	Bos	Bos	Ful	D	Ful LTU5	U	3	Own	Tim 6460	W	½	5.66	.....	A	Tim 1520	Tut	Ros	StM	Fir	6300
Nel'n & LeMoon GP2	....	.....	36x4	36x7	Con S4	4¼x4½	28.9	L	FP	Pha	Bus	Zen	V	Bos	West	B-L	D	B-L 51	A	4	M-E	Tim 6560	W	½	7.75	41.4	A	Tim 1542B	Per	Ros	Arc	Opt	5200
Netco DK	3300	156	36x4‡	36x8‡	Con K-4	4 1/8x5¼	27.2	L	FP	Pha	Bus	Zen	V	Wag	Wes	B-L	D	B-L 50	U	4	Spi	She W 21	W	½	7.7	31	...	She D-343	Per	Ros	Cla	Fir	6000
Northway C2	3300	Opt	36x4‡	36x4‡	Own B2	4 x6	25.6	I	...	Pie	G&O	Str	V	Eis	Bos	Ful	D	Ful GU7	U	4	M-E	She 103	W	½	8.66	41.5	A	She D-343	Tut	Lav	Bim	Fir	4850
Noble B31	2900	162	36x4‡	36x7‡	Bud GTU	4 x5¼	25.6	L	PC	Pie	Chi	Str	V	Eis	Non	Ful	D	Ful TU3	U	3	Har	Wis 800H	W	½	9.33	.....	...	Shu 510	Tut	Ros	Bim	Gdy	4310
O.K K	2250	149	36x3½	36x5	Bud ITU	4 x5½	25.6	L	PC	Non	Own	Zen	V	Eis	Non	Ful	D	Ful LT	A	3	Pet	Wis 800-J	W	½	8.25	33.0	A	Shu 510	Mat	Ros	Pru	.....	5100
Oneida B9	2825	144	36x3½*	36x6‡	Hin 400	4 x5½	25.6	L	PC	Hin	Mod	Str	V	Apo	Bos†	Ful	D	Ful LT	A	4	Pet	Own A	B	F	8.00	33.0	A	Own A	Tut	Ros	Roy	Fir	4250
Oshkosh AW	3080	130	36x6*	36x6*	Wis SU	4 x5	25.6	H	PC	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 35	U	4	Pet	Own AA	B	F	8.00	33.0	A	Own AA	Tut	Ros	Roy	Fir	....
Oshkosh AAW	3180	165	36x6	36x6*	Wis SU	4 x5	25.6	H	PC	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 35	U	4	Pet	Own AA	B	F	8.00	33.0	A	Own AA	Tut	Ros	Roy	Fir	....
Parker F24	2950	150°	34x4	36x7	Wis TAU	4 x6	25.6	L	PC	Pie	Own	Zen	V	Eis	Wes	Ful	D	Ful G7	A	4	Blo	Wis 800JC	W	½	7.75	37.2	A	Con 1901	Tut	Lav	Bim	Non	5100
§Patriot 9L	....	146	36x4	36x7	Hin 400	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Bos	Bos	Ful	D	Ful-TU¾	U	3	Spi	She W1501	W	½	9.25	37.0	...	Tor AAS	Row	Ros	Smi	Gdy	3975
Penn	2300	144	34x5	38x7	Bud WTU	3¾x5⅛	21.0	L	PC	Non	G&O	Zen	G	Bos	Bos	Ful	D	Own XA	A	4	Spi	Own XA	W	½	9.66	.....	A	Own XA	S.P	.....	.....	.....	6280
Pierce Arrow XA	3300	150	36x6*	40x8*	Own XA	4 x5½	25.6	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own XA	A	4	Spi	Own XA	W	½	9.66	.....	A	Own XA	S.P	.....	.....	.....	6280
Rainier R28	3090	157	34x4‡	34x8‡	Con K4	4 1/8x5¼	27.2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	S.P	Ros	Jon	.....	4900
Rainier R28	3190	175	34x4‡	34x8‡	Con K4	4 1/8x5¼	27.2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	S.P	Ros	Jon	.....	5050
Republic 11X	....	144°	34x4‡	34x6‡	Con J4	3¾x5	22.5	L	FP	Pha	Own	Str	V	Bos	Bos‡	Ful	D	Ful	U	3	Spi	Eat	I	D	7.20	28.8	B	Tor	Mat	Jac	Nor	Fir	3900
Ruggles 41	....	148	30x5*	34x7*	Own 40	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Rem‡	B-L	D	B-L 30	U	4	Spi	Wis 65	R	½	7.00	37.4	A	Col 7000	Det	Jac	Nor	Fir	4250
Sandow J8	....	144	36x4	36x7	Her O	4 x5	25.6	L	PC	Non	Chi	Zen	...	Eis	Bos	Ful	D	Ful TU3	.....	...	Spi	She W-103	I	D	8.66	.....	...	She 343	Own	Ros	.....	.....	4000
§Schacht G	3200	156	36x4‡	36x7‡	Wis UAU	4¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own G	A	4	Spi	Own G	W	F	8.66	41.0	B	Own G	She	Own	StM	.....	6200
Schacht J	2600	158	36x4	36x7	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	Bos	Non	Ful	D	Ful GU7	U	4	Blo	Wis 60D	R	½	7.00	33.6	A	Shu 510	She	Ros	.....	Non	4900
Selden 33	....	146	34x4‡	34x6‡	Con K-4	4 1/8x5¼	27.2	L	FP	Pha	Lon	Str	G	Eis	N–E‡	B-L	D	B-L 35	U	4	Spi	Tim 6410	W	½	Opt	Opt	A	Tim 1454	Per	Ros	Van	Fir	4400
§Service 42	....	153	36x4‡	36x7‡	Bud EBU-1	4¼x5½	28.9	L	PC	Non	McC	Str	V	Eis	Rem	B&B	P	B-L 51	A	4	M-E	Tim 6460	W	½	7.75	41.5	A	Tim 1520	She	Ros	Int	.....	5435
Sterling 2	3545	142	36x4	36x6	Own CU	4x5¾	25.6	L	PC	Wau	Own	Zen	V	Eis	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6566	W	F	7.20	38.5	A	Tim 1544B	Mat	Ros	Hoo	.....	5200
Stewart 9	1970	140	34x3½‡	34x6‡	Con N	3¾x5	22.5	L	PS	Non	Bus	Zen	V	Eis	Non	Ful	D	Dur 2500-B	U	3	Har	Cla A-W	I	D	7.60	22.8	A	Col 3008	Bet	Gem	Way	Fir	3680
Traffic 4000C	1695	132	34x3½‡	34x5‡	Con N-4	3¾x5	22.5	L	FP	Non	Own	Car	G	Bos	Bos†	Cov	D	Cov MUNC	U	3	The	Rus 34-I	I	D	7.00	25.6	A	Own	Det	Own	Opt	Fir	3175
Transport 36	....	140	36x3½‡	36x6‡	Bud KTU	4 x5½	25.6	L	PC	Dup	Mod	Zen	G	Eis	Rem‡	Ful	D	Ful GU7	U	4	Blo	Cla I-D	I	D	7.25	34.8	B	Col 7000	Det	Jac	Mot	.....	4300
Traylor C	2850	146	36x4‡	36x7‡	Bud ITU	4 x5½	25.6	L	PC	Pie	G&O	Zen	G	Spl	West	Cov	D	Cov MUSC	U	3	M-F	She W-103	W	½	7.75	28.0	A	She D-343	N-E	Ros	Sch	.....	5500
Triangle C	2285	147	36x4‡	36x7‡	Wau BUX	3¾x5¼	22.5	L	PC	Non	Per	Str	G	Eis	N–E‡	Ful	D	Ful LTU5	U	3	Blo	Cla 2D	I	D	9.10	36.0	B	Eat CC3B	Det	Gem	Roy	Fir	5200
§United 35	....	148	34x5*	34x7‡	Her OX	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Non	B-L	D	B-L 30	U	3	Blo	Wis 51	R	½	7.75	30.7	A	Shu 310	Det	Lav	.....	.....	3810
§U.S. NW24	....	144	36x4‡	36x6‡	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Lon	Str	V	Bos	Opt	Ful	D	Ful LTU5	U	3	Blo	She W-103	W	½	8.75	35.0	...	Shu 350	She	Lav	Sch	.....	4550
Wachusett K	3200	154	.....	.....	Con K4	4 1/8x5¼	27.2	L	FP	Non	G&O	Zen	G	.....	L–N‡	Own	D	Own 20	A	4	Spi	Own 20	R	½	9.25	32.1	A	Own 20	.....	Own	.....	.....	4680
White 20	3250	168	36x4‡	36x7‡	Own GK	3¾x5½	22.5	L	SP	Non	Own	Zen	G	Eis	Non	B-L	D	B-L 35	U	4	Spi	Tim 6460	W	½	7.10	.....	...	Tim 1520	Del	Ros	Arc	Fir	4600
Witt-Will P	2650	168	36x3½	36x7	Con C-4	4 1/8x5¼	27.2	H	FP	Pie	Own	Zen	G	Eis	Non	B-L	D	B-L 35															
2½ Ton																																	
§Ace 56	3350	156°	36x4	36x8*	Bud EBU	4¼x5½	28.9	H	PC	Pie	Own	Zen	V	Eis	Wes	B-L	D	B-L 50	A	4	U-M	Tim 6566	W	F	8.50	45.5	...	Tim 1544B	Mat	Ros	Day	Fir	5650
Acorn 50	3250	156	36x4‡	36x8‡	Bud ETU	4¼x5½	28.9	L	PC	Mc K	Chi	Zen	G	RBo	Non	B-L	D	B-L 51	S	4	Spi	Tim 6560	W	....	.....	.....	A	Tim 1542	.....	Ros	Pru	.....	5500
Amer.-La France 2R	3950	Opt	36x7	36x4‡‡	Own 2R	4¼ x6	28.9	L	PS	Own	Bus	Zen	V	Spl	Bos	Own	D	Own 2R	A	4	Own	Own 2R	R	F	7.57	40.8	B	Own 2R	Mer	.....	Day	.....	6600
§Armleder 50	.....	Opt	36x4	36x8	Bud EBUI	4¼x5½	28.9	L	PC	Pha	Own	Zen	V	Bos	Bos‡	B-L	D	B-L 51	U	4	Spi	Tim 6560	W	F	9.25	49.5	A	Tim 1548B	Row	Ros	StM	Fir	5300
Atterbury 22C	3375	156	36x4‡	36x4†	Con K-4	4 1/8x5¼	27.2	L	FP	Pie	Own	Zen	V	Eis	Del‡	B-L	D	B-L 51	A	4	Spi	Tim 6560	W	F	9.25	49.4	A	Tim 1544B	S.P	Gem	Arc	Fir	5670
Atterbury 22CLWB	3475	180	36x4‡	36x4†	Con K-4	4 1/8x5¼	27.2	L	FP	Pie	Own	Zen	V	Eis	Del‡	B-L	D	B-L 51	A	4	Spi	Tim 6560	W	F	9.25	49.4	A	Tim 1544B	S.P	Gem	Arc	Fir	5870
Autocar H	3450	114	34x5‡	36x8‡	Own H	4x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L–N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5500
Autocar K	3550	138	34x5‡	36x8‡	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L–N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5600
Available JH-2½	....	152	36x4‡	36x8‡	Her O	4 x5	25.6	L	PC	Pie	Chi	Zen	V	Bos	Bos‡	B-L	D	B-L 35	A	4	M-E	Tim 6560	W	F	8.50	40.3	A	Tim	Tut	Ros	Scn	.....	5200
Bessemer J2	....	158	36x4	36x4†	Hin HA500	4¼x5½	28.9	L	PC	Pie	Stn	Zen	G	Bos	Eis†	B&B	P	B-L 50	A	4	Blo	Wis	R	½	.....	.....	A	Shu 510	Per	Ros	Sch	Fir	4800
Bethlehem L	3195	145	36x4	36x8	Own H	4 x5¼	25.6	L	PC	Pie	Bus	Zen	V	Bos	G&D	Ful	D	Ful GU7	U	4	Spi	Wis 88E	R	½	8.80	.....	A	She D343	Mat	Lav	Smi	Fir	4950
Betz D-3	2985	160	36x4	36x8	Own D-3	4¼x5½	28.9	L	...	Mon	Chi	Zen	G	Bos	Non	B-L	D	B-L 35	U	4	Pet	Tim 6560	W	F	.....	.....	....	Tim 1540B	Mar	Ros	Std	.....	5250
Bridgeport B	2990	155	36x4‡	36x8‡	Bud ETU	4¼x5½	28.9	L	PC	Non	G&O	Zen	V	Eis	Bos	B-L	D	B-L 50	U	4	Spi	Tim 6560	W	F	.....	.....	....	.....	.....	Ros	.....	.....	5800
Brinton D	2975	150	36x4	36x8	Con C-4	4 1/8x5¼	27.2	L	FP	Pie	Chi	Str	G	Bos	Non	B-L	D	B-L	U	3	Spi	.....	W	F	33.6	.....	....	.....	Tut	Ros	Smi	.....	4900
Brockway K	....	153	36x4‡	36x8‡	Con K-4	4 1/8x5¼	27.2	L	FP	Pha	Bus	Str	V	Eis	L–N‡	B-L	D	B-L 35	A	4	Spi	Tim 6566	W	F	7.75	41.5	A	Tim 1544	Row	Gem	.....	.....	5260
§Chicago 25	....	158	36x4‡	36x8‡	Her O	4 x5	25.6	L	PC	Dup	Bre	Zen	G	Bos	Non	B-L	D	B-L 35	A	4	Pet	Tim 7566R	R	F	8.45	41.9	...	Tim 1544	Mat	Gem	StM	Fir	5200
Columbia G	2850	148	36x4	36x10	Hin 400	4 x5¼	25.6	L	PC	Pie	Lon	Str	V	Spl	Bos	Det	D	D-G	A	4	Spi	Vul	W	F	9.50	.....	....	Shu	Det	Own	StM	Non	4400
Clydesdale 8	....	156	36x4	36x7	Con K-4	4 1/8x5¼	27.2	L	FP	Own	Own	Zen	V	Bos	Bos	B-L	D	B-L 35	A	4	Spi	Tim 6460	W	½	7.75	41.5	A	Tim 1542	Std	Ros	.....	Non	....
Commerce 25B	....	156	36x6‡	40x8‡	Con K-4	4 1/8x5¼	27.2	L	FP	Non	Lon	Zen	V	Eis	Bij	B-L	D	B-L 51	A	4	U-M	Tim 6566	W	F	7.75	41.4	A	Tim 1526	Amc	Ros	Mot	Fir	5200
§Commerce 25D	....	156	36x6	40x8	Con K-4	4 1/8x5¼	27.2	L	FP	Non	Lon	Zen	V	Bos	Bos	B-L	D	B-L 51	A	4	U-M	Tim 6566	W	F	7.75	41.4	A	Tim 1526	Amc	Ros	Bim	Fir	5400
Concord J	198	36x6	40x8	Con 6B	3¾ x5	33.7	L	FP	Non	Lon	Zen	V	Bos	Bos	B-L	D	B-L 51	A	4	U-M	Tim 6566	W	F	7.75	41.4	A	Tim 1526	Amc	Ros	Bim	Fir	5400
Concord J	3600	150	36x4‡	36x4†	Bud EBU	4¼x5½	28.9	L	PC	Pie	Own	Zen	V	Eis	Opt‡	B-L	D	B-L 50	U	4	Spi	Tim 6560	W	F	9.25	49.4	A	Tim 1544	.....	Ros	Arc	Fir	5400
Corbitt B	3000	152	36x4‡	36x8‡	Con K-4	4 1/8x5¼	27.2	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 50	U	4	Spi	She W-21	W	½	10.3	55.1	A	She 3FA10	She	Ros	Bim	Fir	5325

For full name and address of manufacturer and information regarding complete line see page 43

Trade Name and Model	General				Engine								Electrical System		Clutch		Gearset			Universals (Make)	Rear Axle			Gear Ratios		Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
	Chassis Price	Standard Wheelbase (inches)	Tire Size §§ Front (inches)	Tire Size §§ Rear (inches)	Make and Model	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System: Carburetor (Make)	Fuel System: Fuel Feed	Ignition System (Make)	Generator and Starter (Make)	Make	Type	Make and Model	Location	No. of Forward Speeds		Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low						
2½ Ton—Con'd																															
Day-Elder DN	....	144	36x4‡	36x7‡	Con K-4	4½x5¼	27.2	L	FP	Mon	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 35	U	4	Spi	Tim 6566	W	F	8.50	45.1	A	Col 7018	She	Gem	Van	Fir	5100
Diamond-T U2	3100	160	36x4‡	36x8†	Hin 1400	4x5¼	25.6	L	FP	Own	G&O	Str	V	Bos	Non	Cov	D	Cov RU4C	U	4	Spi	Tim 6560	W	F	7.90	36.8	A	Tim 1544B	Mat	Gem	....	....	5250
Dixon C	3250	154	36x4	36x8	Con K-4	4½x5¼	27.2	L	FP	Pie	G&O	Zen	G	Bos	Non	Ful	D	Ful GU-8	U	4	Har	Tim 6460	W	F	Opt	Opt	A	Tim 1520	S.P	Ros	Smi	Non	5800
Dorris K4	3400	Opt	36x4‡	36x7‡	Own K4	4¼x5½	28.9	H	SP	Own	McC	Str	G	Bos	Wes	Own	D	B-L 55	A	4	Spi	Tim 6566	W	F	7.75	38.6	A	Tim 1544B	Row	Ros	Smi	Fir	5150
Duplex AC	....	160	34x5‡	36x8	Hin 400	4 x5¼	25.6	L	PC	Opt	Mod	Str	V	Eis	Non	B-L	D	B-L 50	A	4	Pet	Vul 4	W	F	8.50	45.4	A	Vul 4	Pen	Ros	Mot	Fir	5500
Federal U2	....	157	36x4‡	36x8	Con K-4	4½x5¼	27.2	L	FP	Pha	Own	Zen	V	Eis	Rem	B&B	D	D-G	A	4	Spi	Tim 6560	W	F	7.45	45.6	A	Own	.....	Gem	Smi	Fir	5300
§Gary E25	3250	148	36x4‡	36x10	Bud EBUI	4¼x5½	28.9	L	PC	McC	Chi	Str	V	Eis	.....	Ful	D	Ful	U	4	Spi	Tim 6566	W	F	8.50	41.0	A	Tim 1542	Mar	Ros	StM	Gdy	5500
G.M.C. K-41A	....	146	36x4‡	36x8‡	Own 41	4 x5½	25.6	L	FP	Own	Own	Mar	G	Sim	Rem	Own	D	Own 41	U	7	Own	Tim 6560	W	F	7.25	49.1	A	Tim 1542B	.....	Own	Day	.....	5595
G.M.C. K-41B	....	158	36x4‡	36x8‡	Own 41	4 x5½	25.6	L	FP	Own	Own	Mar	G	Sim	Rem	Own	D	Own 41	U	7	Own	Tim 6560	W	F	7.25	49.1	A	Tim 1542B	.....	Own	Day	.....	5695
G.M.C. K-41C	....	191½	36x4‡	36x8‡	Own 41	4 x5½	25.6	L	FP	Own	Own	Mar	G	Sim	Rem	Own	D	Own 41	U	7	Own	Tim 6560	W	F	7.25	49.1	A	Tim 1542B	.....	Own	Day	.....	5770
Gramm-Bernstein 125	....	144	36x4‡	36x7	Con K-4	4½x5¼	27.2	L	FP	Sim	Own	Str	G	N-E	N-E	Ful	D	Own 125	A	4	Own	She	W	½	7.70	36.7	...	Col	Per	Ros	Bim	.....	4910
Grass-Premier 80	3050	163°	36x4‡	36x8	Wau CU	4 ⅜x5¾	30.6	L	PC	Wau	Non	Str	V	Bos	Bos	B-L	D	B-L 51	A	4	Spi	Tim 6560	W	F	8.25	46.0	B	Tim	Det	Ros	StM	.....	5400
Harvey WFB	2950	160	36x4	36x8	Bud ETU	4¼x5½	28.9	L	PC	McC	Own	Str	G	Eis	Non	Ful	D	B-L 51	A	4	Spi	She W-21	W	½	8.75	46.8	A	She D-370	Bea	Ros	Smi	Non	6800
Hawkeye	2800	160	34x6*	36x8*	Bud EBU	4¼x5½	28.9	L	FP	Dup	.....	Eis	G	Eis	Non	Ful	D	Ful-GU7	...	4	.....	Cla	B	...	8.1	.....	...	Cla	.....	Ros	.....	.....	5000
Independent HW	2940	150	36x4	36x7	Con K-4	4½x5¼	27.2	L	FP	Non	Chi	Zen	V	Bos	Non	Ful	D	Ful	U	4	Blo	She W-21	W	½	8.75	.....	...	Shu	Tut	Lav	StM	Non	4950
Indiana 25	....	156	36x4	38x8	Own 38	4½x5½	27.2	L	PC	Pie	McC	Str	V	Eis	Rem†	B&B	P	B-L 51	A	4	Sne	She W-21	W	½	8.75	50.8	A	She D–370	Bea	Who	.....	.....	6500
Indiana 26	....	159°	36x4	38x8	Own 38	4½x5½	27.2	L	PC	Pie	McC	Str	G	Eis	Rem†	B&B	P	B-L 55	A	7	Sne	She W-21	W	½	8 75	83.0	A	She D-370	Bea	Who	.....	.....	6500
Kankakee H	....	.....	36x5	36x8	Con K-4	4½x5¼	27.2	L	FP	Non	.....	Zen	G	Bos	Bos	Ful	D	Ful GU	U	4	U-M	Wis 900C	W	½	8.66	.....	...	Shu 550	Tem	Ros	Bim	Fir	.....
Kelly-Springfield K75	3600	154	36x5‡	36x10‡	Con L5	4¼x5½	28.9	L	FP	Pie	Own	Zen	G	Eis	Del‡	B&B	P	B-L 55	A	4	Pet	Cla 2H	I	D	8.00	42.8	A	Own	Mat	Ros	Cla	.....	6300
Kelly-Springfield K76	3600	154	36x5‡	36x10‡	Con L5	4¼x5½	28.9	L	FP	Pie	Own	Zen	G	Eis	Del‡	B&B	P	B-L 55	D	4	Pet	Own	W	½	7.60	40.5	A	Own	Mat	Ros	StM	.....	6400
Kimball AC	3960	Opt	36x5‡	36x10	Wis UAU	4¼x6	28.9	L	PC	Non	Fle	Zen	V	Spl	Spl Wes	B-L	D	B-L 50	A	4	Pet	Tim 6560	W	F	7.75	41.4	A	Tim 1542	U.S	Ros	Smi	Fir	6000
King Zeitler	2875	156°	36x5‡	36x8‡	Con K4	4½x5¼	27.2	L	FP	Pha	Chi	Str	G	Eis	Bos‡	B-L	D	B-L 51	A	4	Pic	Tim 6566	W	F	9.25	49.4	A	Tim 1544B	Mar	Gem	Bim	Fir	5400
Kissel	2875	168	36x4	36x8‡	Own 50000	4¼x5½	28.9	L	SP	Pie	McC	Str	V	Eis	Rem‡	W-G	D	W-G-T53	A	4	Spi	.....	W	F	8.50	42.5	...	.....	Mat	Jac	Pru	Std	5100
Kleiber	3850	163	36x5‡	36x10‡	Con L4	4½x5½	32.4	L	FP	Non	R-T	Str	V	RBo	Bos‡	B-L	D	B-L 51	A	4	Spi	Tim 6560	W	F	7.75	41.5	A	Tim 1544	Bet	Ros	Smi	.....	6500
Krebs K45	....	140	36x4‡	36x7‡	Con K4	4½x5¼	27.2	L	FP	Own	Own	Zen	D	Bos	Bos	B-L	D	B-L 35	A	4	Spi	Tim 6460	W	½	7.75	42.0	A	Tim 1544B	Mat	Ros	Smi	Fir	4730
Lange E	3650	153°	36x4‡	36x8‡	Con K-4	4½x5¼	27.2	L	FP	Non	Own	Str	V	Apo	Non	B-L	D	B-L 51	A	4	Pet	Tim 6566	W	F	9.25	49.5	A	Tim 1544B	S.P	Ros	Hoo	Opt	5200
§Larrabee K-5	3550	176	36x4‡	36x8‡	Con L-4	4½x5½	32.4	L	FP	Pha	R-T	Zen	G	Bos	Non	B-L	D	B-L 51	A	4	Spi	She W-22	W	½	7.75	47.0	A	She D-370	She	Ros	Smi	.....	5700
Luedinghaus	....	145°	36x4‡	36x8‡	Wau RU4R	4¼x4¾	28.9	L	PC	Non	Own	Zen	...	Spl	Non	B&B	P	D-G	U	4	.....	Tim	W	F	....	.....	A	Shu 510	.....	Lav	.....	.....	4900
§Mack AB	3400	146¼°	36x4‡	36x4†	Own AB	4¼x5	28.9	L	PS	Own	Own	Str	G	Spl	Non	Own	D	Own AB	U	4	Spi	Own AB	C	D	*8.98	43.5*	B	Own AB	Mer	Own	.....	.....	5400
§Mack AB	3850	146°	36x4‡	36x4†	Own AB	4¼x5	28.9	L	PS	Own	Own	Str	G	Spl	Non	Own	D	Own AB	R	F	Spi	Own AB	R	F	*9.25	44.9*	B	Own AB	Mer	Own	.....	.....	5950
Master 41	....	154	34x4	36x8	Bud EBU	4¼x5½	28.9	L	PC	Pie	Chi	Zen	V	Eis	Non	Ful	D	Ful	U	4	Spi	Tim 6560	W	F	Opt	Opt	A	Tim	Det	Ros	Pru	Non	5700
National T	....	152	36x5‡	36x10‡	Wau CU	4 ⅜x5¾	30.6	L	PC	Wau	Bus	Zen	G	Bos	Non	H-S	O	B-L 51	A	4	Spi	Tim 6566	W	F	8.50	45.5	A	Tim 1544B	Mat	Ros	Van	.....	6200
Nelson & LeMoon	....	Opt	36x4	36x7	Con K-4	4½x5¼	27.2	L	FP	Pha	Chi	Str	G	Bos	Bos‡	B-L	D	B-L 50	U	3	Own	Tim 6566	W	F	7.70	.....	A	Tim 1542	.....	Ros	StM	Gdy	4100
Netco DH	3500	168	36x5‡	36x10‡	Con L-4	4½x5½	32.4	L	FP	Pha	Bus	Zen	V	Bos	Non	B-L	D	B-L 55	A	4	M-E	Tim 6560	W	F	7.75	41.4	A	Tim 1542B	Mat	Gem	Arc	Opt	5750
Noble D-51	3350	162	36x4‡	36x10	Bud ETU	4¼x5½	27.2	L	PC	Pie	Chi	Str	V	Eis	Bos‡	Ful	D	Ful G-7	A	4	Blo	She W21	W	½	8.75	42.0	A	She V 370	Tut	Lav	Bim	Fir	5750
Ogden E2	....	160	36x4	36x8	Con K-4	4½x5¼	27.2	L	FP	Pha	Chi	Zen	G	Spl	Bos	B-L	D	B-L 51	U	3	Pic	Tim	W	F	7.75	26.0	A	Tim	Tut	Ros	Std	Non	5600
O.K. A	3250	150	36x4	36x8	Bud ETU	4¼x5½	28.9	L	PC	Pie	R-T	Zen	V	Eis	.....	Ful	D	Ful GU7	U	4	Har	Tim 6566	W	F	9.25	.....	...	Shu 550	Tut	Ros	Bim	Gdy	5350
Old Reliable B	3500	Opt	34x4	36x4†	Wis EAU	4¼x6	28.9	L	PC	Pha	Chi	Str	V	Bos	Bos †	Ful	D	Ful G	A	4	Pet	She W-21	W	½	8.75	42.0	A	She D-370	She	Ros	Sch	Non	6000
Oneida C9	3200	160	36x4‡	36x7‡	Hin 400	4 x5¼	25.6	L	PC	Han	Mod	Str	V	Apo	Bos†	Ful	D	Ful LT	A	4	Pet	Wis 900C	W	½	8.60	41.6	A	Shu 550	Mat	Row	Pru	...	5700
Oshkosh BO	3875	146	40x8	40x8	Her O	4 x5⅛	25.6	L	FP	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 50	U	4	Pet	Own BO	B	F	8.00	43.0	B	Own BO	Tut	Ros	Roy	Fir	5400
Oshkosh BBO	3975	165	40x8	40x8	Her O	4 x5⅛	25.6	L	FP	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 50	U	4	Pet	Own BBO	B	F	8.00	43.0	B	Own BBO	Tut	Ros	Roy	Fir	5800
Parker G-24	3450	150°	36x4	36x8	Wis UAU	4¼x6	28.9	L	PC	Pie	Own	Str	V	Eis	Wes	Ful	D	Ful G-7	A	4	Blo	Own G24	W	F	7.75	37.2	B	Shu 510	Tut	Ros	Bim	Non	5600
Power F	....	150	36x6*	36x8‡	Hin HA400	4 x5¼	25.6	L	PC	Hin	Mod	Str	V	Eis	Wes	B-L	D	B-L 51	U	4	Pet	Vul R-4	W	F	7.75	37.2	...	Vul F3	Row	Ros	StM	Fir	5300
Rainier R-20	3550	165	36x4‡	36x10‡	Con K-4	4½x5¼	27.2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 50	A	4	Spi	Tim 6560	W	F	8.50	45.4	A	Tim 1544B	She	Ros	Jon	.....	5500
Rainier R-20	3650	177	36x4‡	36x10‡	Con K-4	4½x5¼	27 2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 50	A	4	Spi	Tim 6560	W	F	8.50	45.4	A	Tim 1544B	She	Ros	Jon	.....	5650
Rowe CDW	3575	143	34x4	36x8	Wis TAU	4 x6	25.6	L	PC	Han	Bus	Zen	V	Bos	Opt‡	B-L	D	B-L 51	U	4	Spi	She W-21	W	½	8.75	31.0	A	She D-370	She	Ros	Hoo	Non	5675
Ruggles 40-H	....	148	36x4‡	36x8	Own 40H	4 x5	25.6	L	FP	Non	Per	Zen	G	Bos	Rem‡	B-L	D	B-L 35	U	4	Spi	Wis 88E	R	½	7.85	42.0	A	Col 8500	Det	Jac	Nor	Fir	4850
Sandow	....	165	.....	.....	Bud ETU	4¼x5½	28 9	L	PC	Mon	Chi	Str	G	Bos	Non	B-L	D	B-L 35	U	4	Spi	Tim 6560	W	F	9.25	37.0	...	Tim 1540B	.....	Ros	.....	.....	4600
Sanford W25A	3350	156	36x4	36x4†	Con L-4	4½x5½	32.4	L	FP	Pha	R-T	Str	G	Eis	Dyn	Ful	P	Ful	A	4	Spi	She 21	W	½	8.75	34.8	A	She D370	She	Ros	Van	.....	4290
Sanford W25B	3350	174	36x4	36x4†	Con L-4	4½x5½	32.4	L	FP	Pha	R-T	Str	G	Eis	Dyn	Ful	P	Ful	A	4	Spi	She 21	W	½	8.75	34.8	A	She D370	She	Ros	Van	.....	5330
§Schacht G	3400	156	36x4‡	36x8‡	Wis UAU	4¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own	A	4	Spi	Own	W	F	8.66	41.0	B	Own	She	Own	StM	.....	6400
Selden Unit 50	3250	149	36x4‡	36x7‡	Con K-4	4½x5¼	27 2	L	FP	Pha	Lon	Str	G	Eis	N–E‡	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	8.50	45.4	A	Tim 1544B	Det	Gem	Std	.....	5980
Standard 2½-3½K	....	147	36x4‡	36x8‡	Con K-4	4½x5¼	27.2	L	FP	Sim	Lon	Str	G	Eis	Bos‡	B-L	D	B-L 35	A	4	Spi	Tim 6562	W	F	8.50	45.4	A	Tim 1542B	Amc	Gem	Day	.....	5400
Standard 2½-3½KS	....	147	36x4‡	36x8‡	Con K-4	4½x5¼	27.2	L	FP	Sim	Lon	Str	G	Eis	Bos‡	B-L	D	B-L 55	A	4	Spi	Tim 6566	W	F	9.25	49.4	A	Tim 1542B	Amc	Gem	Day	.....	5488
§Sterling 2½	3805	156	36x4	36x4†	Own FU	4 ⅜x5¾	30.6	L	PC	Wau	Own	Zen	V	Eis	Bos	B-L	D	B-L 50	U	4	Spi	Tim 6566	W	F	7.20	38.5	A	Tim 1544B	Mat	Ros	Hoo	.....	5550
Stewart 7X	2690	156	34x4‡	34x8‡	Bud HTU	4¼x5½	29.0	L	PC	Pie	Bus	Zen	V	Eis	Rem‡	Ful	D	Ful GU-5	U	4	Spi	Cla 2-D	I	D	9.00	43.2	B	Col 8503	Amc	Ros	Cla	Fir	4820
Super Truck 50	3300	156	36x4‡	36x8‡	Wis TAU	4 x6	25.6	L	PC	Sim	Chi	Zen	G	Bos	Ves†	Ful	D	Ful G	U	4	Spi	She W21	W	½	8.75	42.0	A	She D-370	She	Ros	Pru	.....	5200
§Triangle B	2785	150	36x4‡	36x7‡	Wau FU	4 x5¾	25.6	L	PC	Wau	Whe	Str	G	Eis	Spl†	Ful	D	Ful GU-7	U	4	Blo	Cla 2D	I	D	9.10	43.6	B	Eat CC3B	Det	Gem	Roy	Fir	4900
Twin City BW	2800	156	36x4	36x8	Own TW	4¼x6	28.9	H	PC	Own	Mod	Str	V	Bos	Non	B&B	P	Ful G7	U	4	Spi	Cla 2D	I	D	8.00	38.4	...	Shu 550	Mat	Ros	Bim	.....	4800
Union FLW&FW	3500	155	36x5	36x10	Wis TAU	4 x6	25 6	L	PC	Dup	G&O	She	G	Eis	L-N	Ful	D	Ful GU-7	U	4	U-P	Wal 25A	R	F	.....	37.7	...	She D-370	Mat	Jac	Pru	Gdy	5900
Union FV	3150	155	36x5	36x10	Wis TAU	4 x6	25.6	L	PC	Dup	G&O	She	G	Eis	L-N	Ful	D	Ful GU-7	U	4	U-P	Vul 4-R	W	.....	.....	.....	...	She D370	Mat	Jac	Smi	Gdy	....
§Union FWC	8000	200	38x7	42x9	Wis TAU	4 x6	25.6	L	PC	Dup	G&O	She	G	Apo	L-N	Ful	D	Ful GU-7	U	4	U-P	Wal 25A	R	F	.....	37.7	...	Shu 650B	Mat	Jac	Smi	Gdy	....
§United 50	....	156	34x4*	34x8‡	Her OX	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	.....	B-L	D	B-L 35	U	4	Blo	Wis 66	R	½	7.75	41.5	A	Shu 510	Det	Lav	.....	.....	4120
Wachusett L	3800	170	36x5	36x10	Con L-4	4½x5½	32 4	L	FP	Non	G&O	Zen	V	Bos	Bos	B-L	D	B-L 55	U	4	Har	Tim 6560	W	F	7.75	41.5	...	Tim 1542	Sav	Ros	Smi	Fir	5200
Walker-Johnson B	3600	166	36x5‡	36x10‡	Hin 500	4¼x5½	28 9	L	PC	Hin	Bus	Zen	V	Eis	Bos†	Ful	D	Ful G	A	4	Spi	Tim 6560	W	F	8.50	40.8	A	Shu 550	S.P	Ros	Arc	.....	5300
Ward LaFrance	....	170	36x4	36x8‡	.....	4 ⅜x5¾	30 6	L	...	Non	Own	Str	G	Bos	Non	B-L	D	B-L 50	A	4	Spi	Tim 6560	W	F	7.25	38.7	...	Tim 1542B	Row	Ros	Hoo	.....	5900
Wilcox CC	3000	135	36x4	36x3½†	Own CC	4¼x5	28 9	L	PC	Dup	G&O	Str	G	Bos	Wes‡	Own	D	Own Q	A	4	Own	Wal 25A	R	½	8.60	42.3	B	Shu 550	She	Own	Cla	.....	5000
Witt-Will 8	2950	146	36x4‡	36x8	Con K-4	4½x5¼	27.2	L	FP	Pie	Own	Zen	V	Eis	Non	B-L	D	B-L 51	U	4	Spi	Tim 6560	W	F	8.25	.....	A	Tim 1544	She	Ros	Arc	Fir	5000

3 Ton																															
Bud	....	156	36x4	36x8	Bud EBU	4¼x5½	28.9	L	PC	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot B	U	4	Blo	Tim 6511S	W	F	6.80	35.3	A	Tim 1540B	Det	Ros	Bud	.....	6900

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For full name and address of manufacturer and information regarding complete line see page 48

Trade Name and Model	General				Engine								Electrical System		Clutch		Gearset			Universals (Make)	Rear Axle			Gear Ratios		Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
	Chassis Price	Standard Wheelbase (inches)	Tire Size §§ Front (inches)	Tire Size §§ Rear (inches)	Make and Model	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System: Carburetor (Make)	Fuel System: Fuel Feed	Ignition System (Make)	Generator and Starter (Make)	Make	Type	Make and Model	Location	No. of Forward Speeds		Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low						
3½ Ton—con'd																															
National NB	....	164	36x6‡	36x6†	Wau DU	4½x6¼	32.4	L	PC	Wau	Bus	Zen	G	Eis	Non	H-S	O	B-L 55	A	4	Spi	Tim 6666	W	F	8.75	46.8	A	Tim 1630B	Mat	Ros	Smi	....	7650
Noble E-71	3995	164	36x5‡	36x12‡	Bud YTU	4½x6	32.4	L	PC	Pie	Chi	Str	V	Eis	Wes‡	Ful	D	W-G T53	A	4	Blo	She W-30	W	½	8.75	44.0	A	She 4FA20	Tut	Lav	Bim	Fir	7250
Nelson & LeMoon G		Opt	36x5	36x5†	Con L4	4½x5½	32.4	L	FP	Pha	Chi	Str	G	Bos	Bos‡	B-L	D	B-L 50	U	4	Own	Tim 6666	W	F	8.70	42.0	A	Tim 1630	G-C	Ros	StM	Gdy	6000
Northway C-3½	4200	.....	36x5	40x5†	Own B3	4 x6	25.6	I	PC	Pie	G&O	Str	V	Wag	Wes	B-L	D	B-L 50	A	4	Spi	.....	R	½	10.5	42	A	.....	....	Ros	.....	.....	.....
Ogden F	....	178	36x5	40x10	Con L-4	4½x5½	32.4	L	FP	Pha	Chi	Zen	V	Spl	Non	B-L	D	B-L 55	A	4	M-E	Tim 6666	W	F	10.3	55.2	A	Tim 1630B	Tut	Ros	Std	Non	7300
O.K. Y	3975	164	36x5	36x10	Bud YTU	4½x6	32.4	L	PC	Pie	R-T	Zen	V	Eis	Non	Ful	D	Ful H	A	4	Har	Tim 6666	W	F	.....	.....	A	Shu 610	Tem	Ros	Bim	Gdy	6550
Old Reliable C	4250	Opt	36x5	36x12‡	Wis VAU	4½x6	32.4	L	PC	Pha	Chi	Str	V	Bos	Bos†	Ful	D	Ful H	A	4	Pet	She W-32	W	½	8.75	55.1	A	She 4FA20	She	Ros	Sch	.....	8000
Oneida D	4050	170	36x5‡	36x10‡	Hin 200	4½x5½	32.4	L	PC	Hin	Mod	Str	V	Apo	Bos†	Ful	D	Ful GC	A	4	Pet	Tim 6660	W	F	10 3	49 6	A	Con 1801	Mat	Ros	Smi	.....	7700
Parker J-24	4300	160°	36x5	40x5†	Wis VAU	4½x6	32.4	L	PC	Pie	Own	Str	V	Eis	Wes	Ful	D	Ful H	A	4	Blo	Own J-24	W	F	8.75	43.6	B	Shu 610	Tut	Ros	Smi	Non	6600
Power C	....	160	36x5	36x10†	Hin HA200	4½x5½	32.4	L	PC	Hin	Mod	Str	G	Eis	Wes	B-L	D	B-L 55	A	4	Pet	Wos 900E	W	½	10.0	48.0	...	Con	Row	Ros	StM	Non	7400
Rainier R-25	4400	170	36x5	36x12	Con L-4	4½x5½	32.4	L	FC	Pie	Bus	Zen	V	Eis	Del	B-L	D	B-L 60	A	4	Spi	Tim 6666	W	F	10.3	55.2	A	Tim 1632B	She	Ros	Jon	Non	8000
Sandow M	3895	170	.....	.....	Bud YTU	4½x6	32.4	L	PC	Mon	Chi	Str	G	Bos	Non	B-L	D	B-L 50	A	4	Spi	Tim 6660	W	F	10.2	41.2	A	Tim 1630	....	Ros	.....	.....	6800
Sanford W35B	4200	174	36x5	36x6	Con L-4	4½x5½	32.4	L	FP	Pha	R-T	Str	G	Con	Dyn	Ful	P	Ful	A	4	Spi	She 32	W	½	8.75	54.8	A	She 4FA10	She	Ros	Van	.....	6750
Sanford W-35SC	4200	156	36x6	40x4	Con L-4	4½x5½	32.4	L	FP	Pha	R-T	Str	G	Con	Dyn	Ful	P	Ful	A	4	Spi	She 32	W	½	8.75	93.6	A	She 4FA10	Det	Ros	Van	.....	6710
Selden Unit 70	4175	165	36x5‡	36x10‡	Con L-4	4½x5½	32.4	L	FP	Pha	Lon	Str	G	Eis	N-E‡	B-L	D	B-L 55	A	4	Spi	Tim 6666	W	F	10.3	55.1	A	Tim 1650B	Per	Gem	Std	.....	7200
Selden Unit 52	4850	195	36x5‡	36x10‡	Con L-4	4½x5½	32.4	L	FP	Pha	Lon	Zen	V	Eis	N-F‡	B-L	D	B-L 51	A	4	Spi	Tim 6511	W	F	7.75	31.0	A	Tim 1550	S.S	Gem	Arc	Opt	7200
Standard 3½-5 K	.....	160	36x5	36x12	Con L-4	4½x5½	32.4	L	FP	Sim	Lon	Str	V	Eis	Bos‡	B-L	D	B-L 60	A	7	Spi	Tim 6666	W	F	6.80	83.1	A	Tim 1630B	Amc	Gem	Day	Non	7485
Standard 3½-5KS	.....	160	36x5	36x12	Con L-4	4½x5½	32.4	L	FP	Sim	Lon	Str	V	Eis	Bos‡	B-L	D	B-L 55	A	7	Spi	Tim 6666	W	F	6.80	83.1	A	Tim 1630B	Amc	Gem	Day	Non	7519
Sterling 3½	4750	162	36x5	40x5†	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	Bos	H-S	O	Own	A	3	Spi	Tim 6666	W	F	8.75	39.2	A	Tim 1632B	Mat	Ros	Hoo	.....	7775
Stewart 10-X	3540	165	36x5‡	36x5†	Bud YTU	4½x6	32.0	L	PC	Pie	Bus	Zen	V	Eis	Eis	Ful	P	Ful GU-6	U	3	Spi	Cla 3-D	I	D	10.0	48.0	B	Col 8503	Det	Ros	Cla	Fir	6600
Super Truck 70	4100	164	36x5	40x5†	Wis UAU	4¼x6	28.9	L	PC	Sim	Chi	Zen	G	Bos	Wes†	Ful	D	Ful G	A	4	Spi	She W-32	W	½	10.2	49.2	A	She 4FA20	She	Ros	Smi	Non	7500
Transport 61	....	150	36x4‡	36x8‡	Bud ETU	4¼x5½	28.9	L	PC	Dup	Mod	Zen	G	Eis	Rem‡	Ful	D	Ful GU-7	U	4	Blo	Cla 2-D	I	D	8.15	39.1	B	Shu 5556	Det	Jac	Mot	.....	5600
Twin City AW	3500	168	36x5	40x5	Own TW	4¼x6	28.9	H	PC	Own	Mod	Str	V	Bos	Non	B&B	P	Ful H	A	4	Spi	Tim 6666	W	...	10.3	61.9	A	Tim 1630B	Mat	Ros	Smi	Fir	6800
United 80	....	157	36x5	36x10	Her MU-3	4½x5½	32.4	L	FP	Sim	Per	Zen	G	Bos	Bos‡	B-L	D	B-L 55	A	4	Spi	Wis 120W	R	½	8.66	46.3	A	Con 2203B	Det	Lav	Van	Non	....
Ward LaFrance 4A	4690	162	36x5	36x5‡	.....	4½x6¼	32.4	L	PC	Non	Own	Str	G	Bos	Non	B-L	D	B-L 60	A	4	Spi	Tim 6666	W	F	7.80	41.7	A	Tim 1630B	Row	Ros	Smi	Non	7700
White 40	4200	174	36x5‡	40x5†	Own GR	4¼x5¾	28.9	L	SP	Own	Own	Zen	V	....	L-N‡	Own	D	Own	U	5	Own	Own	R	F	11.7	48.2	B	Own	.....	Own	.....	Non	7130
Wilcox E	3950	147	36x5	36x5†	Buda YTU	4½x6	32.4	L	PC	Dup	Own	Str	G	Bos	Wes‡	.....	D	Own EA	A	4	Own	WAL 5A	R	½	10.0	45.1	B	She 4FA20	She	Own	.....	Non	6600
4 Ton																															
Acme 90	....	168	36x5	40x5†	Con L-4	4½x5½	32.4	L	FP	Dup	G&O	Zen	V	Eis	Del‡	B&B	P	Cot S	A	4	Blo	Tim 6660	W	F	10.3	53.7	A	Tim 1630B	Det	Ros	Bim	Non	6980
Acme 90L	....	177	36x5‡	40x5‡	Con B-5	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del†	B&B	P	Cot S	A	4	Blo	Tim 6660	W	F	8.75	45.5	A	Tim 1630B	Det	Ros	Bim	.....	8160
Acorn 70	4100	166	36x5	40x10	Bud YBUI	4½x6	32.4	...	...	McC	Chi	Zen	G	Bos	....	B-L	D	B-L 60	U	4	The	Tim 6666	W	F	.....	.....	A	Tim 1632B	.....	Ros	Int	.....	7400
Autocar L	4800	156	34x6	36x12†	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7400
Autocar M	4650	120	34x6	36x12†	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7200
Bessemer K2	....	175	36x5	36x10	Con E-7	4½x5½	32.4	L	PC	Pie	Spl	Str	G	Eis	Eis†	B&B	P	B-L 60	A	4	Spi	Tor E	I	D	10.0	49.5	B	Shu 610	Per	Ros	Smi	Fir	7250
Bridgeport C	3990	175	36x6‡	36x12‡	Bud YTU	4½x6	32.4	L	PC	Non	G&O	Zen	V	Eis	Bos	B-L	D	B-L 60	S	4	Spi	Tim 6666	W	F	.....	.....	A	She	....	Ros	Jon	.....	10400
Clinton 90	4260	190	36x5	36x6†	Bud YTU	4½x6	32.4	L	PC	Han	Own	Zen	G	.....	Non	B-L	D	B-L 55	A	4	M-E	Tim 6666	W	F	8.75	46.8	A	Tim 1632B	Per	Ros	StM	.....	7410
Clinton 90M	4400	190	36x5	36x6†	Bud YTU	4½x6	32.4	L	PC	Han	Own	Zen	G	.....	Non	B-L	D	B-L 55 Max	A	7	M-E	Tim 6666	W	F	8.75	83.1	A	Tim 1632B	Per	Ros	StM	.....	7480
Corbitt A	3800	178	36x5	36x10	Con L-4	4½x5½	32.4	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 50	U	4	Spi	She W-32	W	½	13.0	69.5	A	She 4FA20	She	Ros	Smi	Non	7370
Day-Elder FN	....	165	36x5‡	36x5†	Con L-4	4½x5½	32.4	L	FP	Mon	Bus	Zen	V	Eis	Bos†	B-L	D	B-L 51	U	4	Har	Tim 6666	W	F	8.75	46.8	A	Tim 1544	She	Gem	Van	Fir	6700
DeMartini	....	190	36x6	36x12	Bud YBU	4½x6	32.4	L	PC	Non	Own	Zen	V	Bos	Non	B-L	D	B-L 50	U	4	Spi	.....	W	F	8.75	46.0	A	.....	She	Ros	Smi	Non	8500
Fageol 445	5100	172	36x6	36x12	Wau DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	Own	A	7	Spi	Tim 6666	W	F	7.40	79.0	A	Tim 1630B	Mat	Ros	.....	Non	8500
Federal WL	....	157	36x5	40x5†	Con L-4	4½x5½	32.4	L	FP	Pha	Own	Zen	V	Eis	Rem	B&B	P	Own WL	A	4	Spi	Tim 6666	W	F	10.3	61.0	A	Tim 1630B	Mat	Gem	Smi	Fir	7000
Garford 80	....	162	36x5	36x10	Bud YTU	4½x6	32.4	L	PC	Sim	Own	Str	G	Spl	A–K‡	Own	D	Own 80	A	4	Spi	Tim 6666	W	F	8,75	42.3	A	Tim 1632B	Per	Ros	Smi	Non	7850
Gotfredson 80	4375	160	34x5	36x12	Bud YBUI	4½x6	32.4	L	PC	Non	McC	Zen	V	Bos	Non	B-L	D	B-L 55	A	7	Spi	Tim 6666	W	F	10.3	55.3	B	Tim 1632B	Amc	Gem	Day	Non	8400
Gramm-Bernstein 40	.....	156	36x5	36x5†	Hin HA200	4½x5½	32.4	L	PC	Hin	Own	Str	G	Eis	N–E†	Own	D	Own	A	4	Own	She W31	W	½	10.2	50.6	B	She	Per	Ros	Smi	Non	7980
Guilder J	4250	170	36x5	36x10	Bud YTU	4½x6	32.4	L	PC	Pie	G&O	Zen	G	Eis	Non	B-L	D	B-L 60	A	4	M-E	Wis 120	R	½	7.50	54.0	A	Shu 610	Mer	Ros	Van	Van	7500
Indiana 40	.....	160	36x5	40x12	Wau DU	4½x6¼	32.4	L	PC	Wau	McC	Str	V	Eis	Rem‡	B&B	P	B-L 60	A	7	Spi	She W-32	W	½	10.2	97.3	A	She FA20	She	Woh	Smi	Non	....
Kenworth L	4500	170	36x5‡	40x5‡	Bud YBU	4½x6	32.4	L	PC	Non	.....	Str	V	Bos	Bos†	B&B	P	Cot S	A	4	Spi	She W-32	W	½	10.2	53.3	A	She 4FA20	Tut	Ros	Smi	.....	8800
Kimball AM	4835	Opt	36x6	40x7†	Wis VAU	4½x6	32.4	L	PC	Non	Fle	Zen	V	Spl	Spl‡	B-L	D	B-L 60	A	4	Pet	Tim 6666	W	F	8.75	46.8	A	Tim 1630B	U.S	Ros	Smi	Fir	8100
Kimball AE	4960	Opt	36x6	40x7†	Wis RAU	4¾x6	36.1	L	PC	Non	Fle	Zen	V	Spl	Spl‡	B-L	D	B-L 60	A	4	Pet	Tim 6666	W	F	8.75	46.8	A	Tim 1630B	U.S	Ros	Smi	Fir	8100
Kissel Heavy Duty	3675	168	36x5‡	36x12‡	Own 14000	4¼x5½	28.9	L	SP	Pie	McC	Str	V	Eis	Rem‡	W-G	D	W-G T-53	A	4	Spi	She W-31	W	½	11.7	58.6	A	She 4FA20	She	Ros	Smi	Non	7200
Maccar M2	....	176	36x6†	36x5†	Wis VAU	4½x6	32.4	L	PC	Pie	Own	S-Z	V	Eis	Bos‡	B-L	D	B-L 55	U	4	Spi	Tim 6666	W	F	8.75	46.8	A	Tim 1632B	Row	Ros	Day	.....	7300
Netco	4500	170	36x6‡	36x12‡	Hin 200	4½x5½	32.4	L	PC	Non	Bus	Zen	G	Bos	Non	B-L	D	B-L 55 Max	U	7	Pet	Wis	I	½	10.0	95.0	A	Shu	Mat	Gem	Opt	.....	....
Noble E-72	4150	164	36x5	36x12	Bud YTU	4½x6	32.4	L	PC	Pie	Chi	Str	V	Eis	Wes	Ful	D	War	A	8	Blo	She W30	W	½	8.75	93.6	A	She 4FA20	Tut	Lav	Bim	Non	7300
Oshkosh F	5400	146	36x8‡	36x12	Wau	5 x6¼	40.0	L	PC	Wau	Own	Zen	G	Spl	Non	Ful	D	Ful	U	4	Blo	Own	B	F	7.90	47.4	A	Own	Tut	Lav	Cla	.....	8350
Pierce Arrow WC	4600	162	36x5‡	36x6†	Own WC	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own WC	A	4	Spi	Own WC	W	½	8.00	.....	B	Own WC	S.P	.....	Bet	.....	6700
Republic 20	....	165°	36x5‡	36x10‡	Con L-4	4½x5½	32.4	L	FP	Pha	Own	Str	V	Bos	Bos‡	Ful	D	Ful	U	4	Spi	Tor	I	D	10.2	49.2	B	Tor	Mat	Jac	Smi	Fir	6700
Rowe HW	4500	157½	36x6	36x12	Wis VAU	4½x6	32.4	L	PC	Han	Bus	Zen	G	Bos	Opt†	B-L	D	B-L 55	U	4	Spi	She W-32	W	½	10.2	35.0	A	She 4FA20	She	Ros	Hoo	Non	7350
Schacht	4400	168	36x5	40x6†	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own	A	4	Spi	Own	W	F	11.6	55.4	B	Own	She	Own	StM	Non	7800
Selden 73	4475	168	36x5‡	36x10‡	Con B-5	4¾x6	36.1	L	FP	Pha	Lon	Str	V	Eis	N-E	B-L	D	B-L 55	A	4	Spi	Tim 6666	W	F	8.75	46.8	A	Tim 1630B	S.P	Gem	Std	.....	7720
Service 81	....	173	36x5‡	36x10‡	Bud YBU	4½x6	32.4	L	PC	Non	Lon	Str	V	Eis	Rem‡	B&B	P	B-L 60	A	4	M-E	Tim 6666	W	F	7.80	41.6	A	Tim 1632B	She	Ros	Int	.....	7900
Union H	3950	174	36x6	36x10	Wis VAU	4½x6	32.4	L	PC	Dup	G&O	She	G	Eis	L-N	Ful	D	Ful H	U	4	U-P	Tor E-1	I	G	10.2	49.2	B	Shu 650	Mat	Jac	Smi	Gdy	7700
Union HW	4500	174	36x6	40x12	Wis VAU	4½x6	32.4	L	PC	Dup	G&O	She	G	Eis	L-N	Ful	D	Ful HUI	A	4	U-P	Wal 5A	R	F	10.5	63.0	A	Shu 650	Mat	Jac	Smi	Gdy	7750
U. S. S	.....	168	36x5	36x5†	Hin 200	4½x5½	32.4	L	PC	Hin	Lon	Str	V	Spl	Bos†	B-L	D	B-L 55	A	4	Blo	She W-32	W	½	10.2	54.8	A	She 4FA20	She	Lav	Sch	Non	7600
Witt-Will A	4500	172	36x6	40x6†	Con B5	4¾x6	36.1	L	FC	Pie	Own	Zen	G	Eis	Wes	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	53.3	A	Tim 1732B	She	Ros	Smi	Non	9500

5 Ton

5 Ton

Amer. LaFrance 5R	5500	Opt	36x6‡	40x6†	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos	Own	D	Own 5R	A	4	Own	Own 5R	W	F	10.0	54.5	B	Own 5R	Mer	.....	Day	Non	9600
Atterbury 24E	5350	174	36x6	40x7†	Con B-7	5 x6	40.1	L	FP	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 60 Max	A	7	Spi	Tim 6760	W	F	11.6	110.7	A	Tim 1732B	S.P	Gem	Std	Non	9500
Atterbury 24E-LWB	5500	204	36x6	40x7†	Con B-7	5 x6	40.1	L	FP	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 60 Max	A	7	Spi	Tim 6760	W	F	11.6	110.7	A	Tim 1732B	S.P	Gem	Std	Non	9900
Autocar L	4800	156	34x6	36x12†	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7400
Autocar M	4650	120	34x6	36x12†	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7200
Available H5	....	190	36x6	40x12	Her T-3	5 x6	40.0	L	FP	Pie	Chi	Str	V	Bos	Bos†	B-L	D	B-L 60	A	4	M-E	Tim 6760	W	F	11.3	60.6	A	Tim 1730	Tut	Ros	Smi	Non	9500
Brockway T	....	174	36x6	40x14†	Con B-7	5 x6	40.0	L	FP	Pha	Bus	Str	V	Eis	L-N†	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732	Row	Gem	Smi	Non	9800
§Chicago 50	....	163	36x6	40x6†	Her MU-3	4½x5½	32.4	L	FP	Sim	Bre	Zen	G	Bos	Non	B-L	D	B-L 55	A	4	Pet	Tim	R	F	10 3	63.1	A	Tim 1732B	Mat	Gem	Opt	Non	8500
Clinton 120L	5140	204	36x6‡	36x7†	Bud BTU	5 x6½	40.0	L	PC	Han	Own	Zen	G	.....	Non	B-L	D	B-L 60	A	4	M-E	Tim 6760	W	F	8.80	47.1	A	Tim 1732B	Per	Ros	StM	.....	9400
Clinton 120LM	5250	204	36x6	36x7†	Bud BTU	5 x6½	40.0	L	PC	Han	Own	Zen	G	.....	Non	B-L	D	B-L 60 Max	A	7	M-E	Tim 6760	W	F	8.80	83.6	A	Tim 1732B	Per	Ros	StM	.....	9400
Clydesdale 4	....	177	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Own	Own	Zen	V	Bos	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6666	W	F	10.3	55.3	A	Tim 1630B	S.S	Ros	.....	Non	....
Corbitt AA	4750	178	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 60	A	7	Spi	She W-51	W	½	13.0	96.0	A	She 4FA20	She	Ros	Smi	Non	9410
Day-Elder EN	....	170	36x5	40x6†	Con B-5	4¾x6	36.1	L	FP	Mon	Bus	Zen	V	Eis	Non	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	She	Gem	Smi	Fir	8800
Diamond T S	5100	180	36x6	40x6†	Hin Class B	4¾x6	36.1	L	PC	Own	G&O	Str	V	Bos	Opt‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1732B	Mat	Gem	.....	Non	8750
Dixon	4490	160	36x5	36x12	Con L-4	4½x5½	32.4	L	FP	Pie	G&O	Zen	G	Bos	Non	Ful	D	Ful HUI	U	4	Har	Tim 6666	W	F	Opt	Opt	A	Tim 1632B	S.P	Ros	Smi	Non	7800
Federal X-2	....	163	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Pha	Own	Zen	V	Eis	Rem†	B&B	P	W-G	A	4	Spi	Tim 6760	W	F	10.2	60.0	A	Tim 1630B	Mat	Gem	.....	Non	8700
Garford 68D	....	162	36x6‡	40x12	Bud BTU	5 x6½	40.0	L	PC	Sim	Own	Str	G	Spl	Wes‡	Own	D	Own 68D	A	4	Spi	Tim 6760	W	F	8.80	.....	A	Tim 1732B	Per	Ros	Smi	Non	9350
§Gary B50	4850	182	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	McC	Chi	Str	V	Eis	Non	B-L	D	B-L	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1730	Mar	Ros	Day	Non	9250
G.M.C. K-101A	....	163	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mar	G	Sim	Rem	Own	D	Own 101A	A	7	Own	Tim 6760	W	F	10.0	86.0	A	Tim 1632B	.....	Own	Day	Non	8755
G.M.C. K-101B	....	187	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mer	V	Sim	Rem	Own	D	Own 101B	A	7	Own	Tim 6760	W	F	10.0	86.0	A	Tim 1632B	.....	Own	Day	Non	9120
Gotfredson 100	5150	166	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pha	McC	Zen	V	Bos	Non	B-L	D	B-L 60	A	7	Spi	Tim 6760	W	F	10.2	54.8	B	Tim 1732B	Amc	Gem	Day	Non	9700
Gramm-Berns'n 50-60	....	168	36x6	40x6†	Con 50	4¾x6	36.1	L	PC	Con	Own	Str	G	Eis	N-E	Own	D	Own 50	A	4	Own	She W-51	W	½	10.5	62.0	B	She HFA20	Per	Ros	Smi	Non	9700
Guilder K5-6	5250	170	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	G&O	Zen	G	Eis	Non	B-L	D	B-L 60	A	4	M-E	Wis	R	½	9.00	.....	B	Shu 650	Mer	Ros	Van	.....	8500
Indiana 51 & 52	....	1700	36x6	40x12	Wau EU	5 x6¼	40.0	L	PC	Wau	McC	Str	V	Eis	Rem†	B&B	P	B-L 60	A	7	Sne	She W-52	W	½	10.2	54.8	A	She 4-FA-20	Bea	Who	Smi	.....	9310
International 103	....	160	36x5	40x14	Own	4¼x5	28.9	H	SP	Own	Own	Own	G	RBo	Rem‡	Own	D	Own 103	A	4	Own	Own 103	I	D	11.0	69.9	B	Own 103	She	Own	Own	Non	7580
Kearns TF	4700	.....	36x6	40x12	Wis VAU	4½x6	32.4	L	PC	Dup	Bus	Zen	G	RBo	Non	Ful	D	Ful H-1	A	4	Pet	She W51	W	½	10.7	64.5	A	She 4FA20	She	Ros	Van	Non	8200
Kenworth RS	5500	178	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	Own	Str	V	Bos	Bos	B-L	P	B-L 60	A	7	Spi	She W-51	W	½	8.75	89.0	A	She 4FA-20	Lah	Ros	Smi	.....	9700
Kimball AF	5160	Opt	36x6	40x7†	Wis RBU	5 x6	40.0	L	PC	Non	Fle	Zen	V	Spl	Wes‡	B-L	D	B-L 60	A	4	Pet	Tim 6760	W	F	8.75	46.8	A	Tim 1630B	Tim	Ros	Smi	Fir	8800
King Zeitler	4525	168°	36x7	40x14	Con B5	4¾x6	36.1	L	FP	Pha	Chi	Str	G	Eis	Bos‡	B-L	D	B-L 60	A	4	Pic	Tim 6760	W	F	11.6	62.3	A	Tim 1732 B	Mar	Lav	Bim	Fir	8600
Kleiber	5300	185	36x6‡	40x14‡	Con B-5	4¾x6	36.1	L	FP	Non	R-T	Str	V	RBo	Non	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.3	54.8	A	Tim 1730	Bet	Ros	Smi	.....	10400
Krebs B120	....	180	36x6	40x12	Con B-5	4¾x6	36.1	L	PC	Own	Own	Zen	V	Bos	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6666	W	F	10.3	55.0	A	Tim 1632B	Mat	Ros	Smi	Fir	7460
Luedinghaus	....	160°	36x6‡	40x6‡	Wau EU	5 x6¼	40.0	L	PC	Non	Own	Zen	G	Spl	Opt‡	B-L	D	B-L 60	A	4	Spi	Tim	W	F	11.6	.....	A	.....	.....	Ros	.....	.....	9500
Maccar G1	....	186	36x6‡	40x6‡	Wis RBU	5 x6	40.0	L	PC	Pie	Own	S-Z	V	Eis	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	Row	Ros	Day	.....	8975
Mack AC	5500	156°	36x6	40x6†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	L-N‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	*8.31	53.3*	D	Own AC	Mer	Own	.....	Non	9500
Master 61	....	158	36x5	40x12	Bud YBU	4½x6	32.4	L	PC	Pie	Chi	Zen	V	Eis	Non	Ful	D	Ful	A	4	Spi	Tim 6760	W	F	11.6	61.4	A	Con	Tut	Ros	Smi	Non	8200
Menominee J3	4850	160	36x6	40x12	Wis RAU	4¾x6	36.1	L	PC	Mon	Own	Str	G	Eis	Bos‡	Det	D	Cot S	A	4	Spi	Tim	W	F	Opt	Opt	A	Tim 1630	Det	Ros	Smi	Non	8250
Moreland RX	5000	192	36x6	40x7	Con B-5	4¾x6	36.1	L	FP	Con	Own	.....	V	Spl	A-L‡	Own	D	Own 22H	A	5	Pet	Tim 6666	W	F	8.75	52.6	A	Tim 1632B	U.S	Ros	Smi	Non	8180
Nelson & LeMoon G	....	Opt	36x6	40x6†	Con B-2	4¾x6	36.1	L	FP	Con	Chi	Str	G	Bos	Bos‡	B-L	D	B-L 60	A	4	Own	Tim 6766	W	F	11.6	.....	A	Tim 1730	Tut	Ros	StM	Non	8000
Ogden G	....	175	36x6	40x12	Con B-5	4¾x6	36.1	L	FP	Con	Chi	Zen	G	Spl	Ves	B-L	D	B-L 35	A	4	M-E	Tim 6766	I	...	10.3	.....	A	Tim 1540B	Tut	Ros	Sm	Non	8600
Old Reliable D	4500	165	36x6	40x6†	Wis RAU	4¾x6	36.1	L	PC	Pha	Chi	Str	V	Apo	Bos	Own	D	B-L 60	A	4	Pet	She W-51	W	½	10.2	54.8	B	She 4FA20	She	Ros	Sch	Non	8000
Oneida E-9	4725	180°	36x6	40x12	Hin 1600	4½x5½	33.5	H	PC	Hin	Mod	Str	V	Apo	Bos	Ful	D	Ful GC	A	4	Pet	Tim 6660	W	F	11.6	70.00	A	Con 1801	Mat	Ros	Smi	Non	9400
Parker M20	5250	160	36x6	40x6†	Wis RBU	5 x6	40.0	L	PC	Sim	Own	Str	V	Eis	Wes	B-L	D	Ful H	A	4	Blo	Tim 6760	W	F	10.2	51.1	A	Shu 650	Tut	Ros	Smi	Non	8490
Pierce-Arrow WD	4700	162	36x6‡	36x7†	Own WD	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own WD	A	1	Spi	Own WD	W	½	8.00	.....	B	Own WD	S.P	Own	Bet	.....	8420
Rowe FW	4850	170	36x6	40x7†	Wis RAU	4¾x6	36.1	L	PC	Sim	Bus	Zen	G	Bos	Opt‡	B-L	D	B-L 60	A	4	Spi	She W51	W	½	10.2	40.7	A	She 5FA30	She	Ros	Smi	.....	9140
Sandow L	....	175	.....	.....	Bud BTU	5 x6½	32.4	L	FP	Mon	Chi	Str	G	Bos	Non	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	½	11.0	46.6	B	Tim 1730	.....	Ros	.....	.....	7800
Sanford W50	5100	174	36x6	40x14	Con B-7	5 x6	36.1	L	FP	Pha	Own	Str	G	Con	Dyn	Ful	D	Ful H-1	A	4	Spi	She 51	W	½	10.7	67.0	A	She 4FA20	She	Ros	Van	Fir	9175
Schacht	4600	168	36x5	40x7†	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	D	Own	A	4	Spi	Own	W	F	14.0	66.5	B	Own	She	Own	StM	.....	8200
Selden Unit 90	....	164	36x6	40x12	Con B-7	5 x6	40.1	L	FP	Pha	Lon	Str	G	Eis	Non	Det	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	62.0	A	Tim 1730B	S.P	Gem	Std	.....	9650
Sterling W	5400	168	36x6	40x6†	Own EU	5 x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	Bos	H-S	D	Own W	A	3	Spi	Tim 6760	W	F	8.80	39.7	A	Tim 1732B	Mat	Ros	Hoo	Non	9175
Sterling EHD	5750	174	36x6	40x6†	Own EU	5 x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	Bos‡	H-S	O	Own EHD	A	6	M-E	Own EHD	C	D	7.26	44.0	B	Tim 1732B	Mat	Ros	Smi	Non	9695
Sterling ELD	6000	174	36x5	40x6†	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	Bos‡	H-S	O	Own ELD	A	6	M-E	Own ELD	C	D	7.04	43.0	B	Tim 1632B	Mat	Ros	Hoo	Non	7925
Super Truck 100	4500	164	40x5	40x6†	Wis RAU	4¾x6	36.1	L	PC	Sim	Chi	Zen	G	Spl	‡Ves†	Ful	D	Ful H	A	4	Spi	She W-51	W	½	10.2	49.2	A	She 4FA20	She	Ros	Smi	Non	8500
Transport 75	....	170	36x5‡	36x12‡	Bud YTU	4½x6	32.4	L	PC	Dup	Mod	Zen	G	Eis	Rem‡	B&B	P	Cot RU	U	4	Blo	Cla 3D	I	D	10.0	52.0	B	Shu 610	Det	Jac	Mot	.....	7600
Traylor F	4700	170	36x6	40x6†	Bud YTU	4½x6	32.4	L	PC	Sim	G&O	Zen	G	Bos	West†	B-L	D	B-L 60	A	4	Spi	She W-32	W	½	10.2	55.0	A	She 4FA20	Mer	Ros	Smi	Non	8800
U. S. S. Special	....	168	36x6	40x6†	Hin HA230	4½x5½	32.4	L	PC	Hin	Lon	Str	V	Spl	Bos‡	B-L	D	B-L 5b	A	4	Blo	She	W	½	11.7	62.8	A	She 4FA20	She	Lav	Smi	Non	7500
United 80	....	176	36x6	36x12	Her MU3	4½x5½	32.4	L	PC	Dup	Per	Zen	G	Bos	Non	B-L	D	B-L 55	A	4	Blo	Wis 1800	R	...	14.1	74.9	A	Shu 610	Det	Lav	.....	.....	.....
Ward LaFrance A	5490	164	36x6	40x6†	.....	4 x6¼	40.0	L	PC	Non	Own	Str	G	Bos	Non	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	8.80	47.0	A	Tim 1730B	Row	Ros	Smi	Non	9300
White 45	4500	162	36x6‡	40x6†	Own GR	4¼x5¾	28.9	L	PC	Own	Own	Zen	V	.....	L-N‡	Own	P	Own 45	U	4	Own	Own 45	R	F	11.7	48.2	B	Own 45	.....	Own	.....	Non	8100
Wilcox F	4350	162	36x5	40x12	Bud ATU	4¾x6½	36.1	L	PC	Dup	Own	Str	V	Bos	Opt‡	Own	D	Own EA	A	4	Spi	WAL 5A	R	½	10.2	56.5	B	She 5FA30	She	Own	Smi	Non	9000
Witt-Will A	4500	172	36x6	40x6†	Con B5	4¾x6	36.1	L	FP	Non	Own	Zen	G	Eis	Wes	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	53.3	A	Tim 1730B	She	Ros	Day	Non	9500

5½, 6 and 7 Ton

Acme 125	....	180	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del†	B&B	P	Cot T	A	4	Blo	Tim 6760	W	F	11.6	60.6	A	Tim 1730B	Det	Ros	Smi	Non	8976
Amer La Fr. 5R 6ton	5750	Opt	36x6‡	40x6†	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos	Own	D	Own 5R	A	4	Own	Own 5R	W	F	10.0	54.5	A	Own 5R	Mer	.....	Day	.....	9600
Amer. La Fr. 5R 7ton	6000	Opt	36x7	40x7†	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos	Own		Own 5R	A	4	Own	Own 5R	W	F	11.6	63.6	A	Own 5R	Mer	.....	Day	.....	9800
Autocar L	4800	156	34x6	36x12†	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7400
Autocar M	4650	120	34x6	36x12†	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7200
Clinton 120SM	5250	180	36x6‡	40x7‡	Bud BTU	5 x6½	40.0	L	PC	Han	Own	Zen	G	.....	Non	B-L	D	B-L 60	A	7	M-E	Tim 6760	W	F	8.80	83.6	A	Tim 1732B	Per	Ros	StM	.....	9400
Clydesdale 2	....	176	36x7	40x7†	Con B5	4¾x6	36.1	L	FP	Own	Own	Zen	V	Bos	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	62.5	A	Tim 1730B	Std	Ros	.....	Non	....
Fageol 645	5800	172	36x6	40x14	Wau DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	Own B	A	7	Spi	Tim 6760	W	F	.....	.....	A	Tim 1732-B	Mat	Ros	.....	.....	9100
Garford 151	....	162	36x6	40x12	Bud BTU	5 x6½	40.0	L	PC	Sim	Own	Str	G	Spl	Wes‡	Own	D	Own 151	J	4	Spi	Own 151	C	D	11.4	.....	B	Tim 1732B	Per	Ros	Cla	Non	10100
Gramm-Bernstein 56	....	168	36x6	40x6†	Con B5	4¾x6	36.1	L	PC	Con	Own	Str	G	Eis	N-E†	Own	D	Own 50	A	4	Own	She W51	W	½	10.5	62.00	B	She	Per	Ros	Smi	Non	9700
Guilder K	5250	170	36x6	40x14	Bud BTU	5 x6½	....	L	PC	Pie	G&O	Zen	G	Eis	Non	B-L	D	B-L 60	A	4	M-E	Wis	R	½	9.10	.....	A	Shu 650	Mer	Ros	Van	Non	8500
Kelly-Springfield K61	5000	156	36x6	36x7†	Own K61	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Opt	B&B	P	B-L 60	A	4	Pet	Cla 5H	I	D	11.6	61.8	D	Own K-61	Per	Gem	Cla	Non	9025
Mack AC6½	5750	156°	36x6	40x12	Own AC	5 x6	40.0	L	PS	Own	Own	Zen	G	Spl	L-N‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	*8.95	57.4*	D	Own AC	Mer	Own	.....	.....	9850

For full name and address of manufacturer and information regarding complete line see page 43

Trade Name and Model	General				Engine									Electrical System		Clutch		Gearset			Universals (Make)	Rear Axle			Gear Ratios		Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
	Chassis Price	Standard Wheelbase (inches)	Tire Size §§ Front (inches)	Tire Size §§ Rear (inches)	Make and Model	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System Carburetor (Make)	Fuel System Fuel Feed	Ignition System (Make)	Generator and Starter (Make)	Make	Type	Make and Model	Location	No. of Forward Speeds		Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low						
5½, 6 and 7 Ton—con'd																																
Mack AC7½	6000	156°	36x7	40x7†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	Non	Own	P	Own AC	J	4	Spi	Own AC	C	D	10.5	67.3	D	Own AC	Mer	Own	.....	Non	10100
Master 64	....	170	36x6	40x14	Bud ATU	4¾x6½	36.1	L	PC	Pie	Chi	Zen	V	Eis	Non	Ful	D	Ful	A	4	Spi	Tim 6760	W	F	Opt	Opt	A	Tim 1730B	Det	Ros	Smi	Non	9800
Old Reliable L	6000	Opt	36x6	40x7†	Wau P	4¾x6¾	36.1	L	PC	Wau	Chi	Str	G	Bos	Non	Own	O	Own L	C	D	Pet	Own L	W	½	10.0	50.6	B	Con 2005	She	Ros	Sch	Non	10250
Pierce-Arrow RF	5200	168	36x6‡	40x8†	Own RF	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own RF	A	4	Spi	Own RF	W	½	10.0	.....	B	Own RF	S.P	Own	Bet	.....	9540
Pierce-Arrow RE	5100	168	36x6‡	40x7†	Own RE	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own RE	A	4	Spi	Own RE	W	½	10.0	.....	B	Own RE	S.P	Own	Bet	.....	9540
Rainier R27	5100	170	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Pie	Bus	Zen	V	Eis	Del	‡B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	13.6	73.0	A	Tim 1632B	She	Ros	Smi	Non	9000
Saurer 5AD	6500	Opt	40x6†	40x7‡	Own 5AD	4 11/16x7 3/32	29.3	L	PS	Own	Own	Own	G	Sci	Non	Own	D	Own 5AD	A	4	Own	Own 5 AD	B	F	7.87	50.0	B	Own 5AD	Own	Own	Own	.....	7500
Service 103	....	173	36x6	40x12	Bud YBU	4½x6	32.4	L	PC	Non	Lon	Str	V	Eis	Rem‡	B&B	P	B-L 60	A	4	M-E	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	She	Ros	Int	Non	9150
Standard 5-7	....	165	36x6	40x14	Con B-5	4¾x6	36.1	L	FP	Sim	Lon	Str	V	Eis	Bos‡	B-L	D	B-L 60	A	7	Spi	Tim 6760	W	F	6.86	83.6	A	Tim 1730	Amc	Gem	Day	Non	8700
Sterling 7½	6500	174	36x6	40x7†	Own 7½	5 x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	Bos‡	H-S	O	Own EHB	A	6	M-E	Own 7½	C	D	8.20	49.9	B	Tim 1732B	Met	Mat	Smi	Non	10175
U.S. T	....	172	36x6	40x6†	Bud ATU	4¾x6½	36.1	L	PC	Sim	Lon	Str	V	Eis	Bos	B-L	D	B-L 60	A	4	Blo	She W-51	W	½	10.2	54.8	B	She 4FA20	She	Lav	Smi	Non	9700
Gasoline Tractor-Trucks																																
Acme 40	....	111	34x4	34x6	Con J-4	3¾x5	22.5	L	FP	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot AAU	U	..	Blo	Tim 6460	W	½	8.75	35.0	A	Tim 1520	Det	Ros	Bim	Non	3983
Acme 40L	....	116⅛	34x4	34x6	Con K4	4⅛x5¾	27.2	L	FP	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot RU	U	4	Blo	Tim 6460	W	½	7.00	34.6	A	Tim 1520	Det	Ros	Bim	Non	4580
Acme 60	....	116⅛	36x4	36x8	Con K4	4⅛x5¼	27.2	L	FP	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot RU	U	4	Blo	Tim 6560	W	F	9.25	48.1	A	Tim 1540-B	Det	Ros	Bim	Non	4830
Acme 60 L	....	119¾	36x4	36x10	Con L4	4½x5½	32.4	L	FP	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot RU	U	4	Blo	Tim 6560	W	F	8.50	42.0	A	Tim 1540B	Det	Ros	Int	Non	5050
Acme 90	....	121¾	36x5	40x12	Con L4	4½x5½	32.4	L	FP	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot SU	U	4	Blo	Tim 6660	W	F	10.3	53.7	A	Tim 1630B	Det	Ros	Bim	Non	6980
Acme 90–L	....	129	36x5	40x12	Con B5	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del	B&B	P	Cot SU	U	4	Blo	Tim 6660	W	F	8.75	45.5	A	Tim 1630-B	Det	Ros	Bim	Non	8160
Acme 125	....	129	36x6	40x14	Con B5	4¾x6	36.1	L	FP	Dup	G&O	Ray	V	Eis	Del	B&B	P	Cot SU	U	4	Blo	Tim 6760	W	F	11.6	60.6	A	Tim 1730-B	Det	Ros	Smi	Non	8976
Amer. La Fr. 5 Ton	3950	143 5/16	36x4‡	36x7‡	Own 2R	4¼x6	28.9	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 2R	A	4	Own	Own 2R	R	F	7.57	40.8	B	Own 2R	Mer	.....	Day	.....	6400
Amer. La Fr. 7 Ton	4950	146⅛	36x5‡	36x10‡	Own 3R	4¼x6	28.9	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 2R	A	4	Own	Own 2R	W	F	8.75	47.1	B	Own 3R	Mer	.....	Day	.....	8400
Amer. La Fr. 10 Ton	5500	146½	36x6‡	40x6†	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 3R	W	F	10.0	54.5	B	Own 5R	Mer	.....	Day	.....	9400
Amer. La Fr. 13 Ton	5750	146½	36x6‡	40x6†	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 3R	W	F	10.0	54.5	B	Own 5R	Mer	.....	Day	.....	9500
Amer. La Fr. 15 Ton	6000	146½	36x7‡	40x7†	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos‡	Own	D	Own 5R	A	4	Own	Own 5R	W	F	11.6	63.6	B	Own 5R	Mer	.....	Day	.....	9700
Diamond T D3T	....	119½	36x4	36x4	.....	.....	....	L	PC	.....	G&O	Str	G	Bos	Non‡	Cov	D	Cov JUC	U	3	Spi	Tim	W	½	6.20	26.0	A	Own 512	.....	.....	.....	Non	....
Diamond T TT	....	119½	36x3½	36x5	Hin 700	3¾x5¼	22.5	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	Cov	U	3	Spi	Tim	W	½	8.20	29.9	A	Tim 1452	Mat	Gem	.....	Non	....
Diamond T U2T	....	119½	36x4‡	36x8†	Hin 1400	4 x5¼	25.6	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	Cov RU4C	U	4	Spi	Tim 6560	W	F	7.90	36.8	A	Tim 1544B	Mat	Gem	.....	Non	....
Diamond T KT	....	118⅞	36x5	36x5†	Hin 1500	4½x5½	28.9	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	Cov SA4	U	4	Spi	Tim 6666	W	F	8.80	44.3	A	Tim 1632B	Mat	Gem	.....	Non	....
Diamond T ST	....	140	36x6	40x5†	Hin CLB	4¾x6	36.1	L	PC	Hin	G&O	Str	V	Bos	Non	Cov	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1732B	Mat	Gem	.....	Non	....
Federal	....	125	36x4	36x4†	Con K-4	4⅛x5¼	27.2	L	FP	Pha	Own	Zen	V	Eis	Rem	B&B	P	D-G	A	4	Spi	Tim 6560	W	F	8.50	50.1	A	Own	.....	Gem	.....	Non	5000
Federal	....	121	36x5	36x5†	Con L-4	4½x5½	32.4	L	FP	Pha	Own	Zen	V	Eis	Rem	B&B	P	W-G	A	4	Spi	Tim 6666	W	F	10.3	59.8	A	Tim 1630B	.....	Gem	.....	Non	6700
F. W. D	....	105	36x7	Wis A	4¾x5½	36.1	T	PC	Pie	MeC	Str	G	Eis	N-E‡	H-S	D	Cot DAE	A	3	Blo	Own B	B	F	8.90	35.6	B	Own B	Tut	Ros	Std	Non	6150
G.M.C. K-41T	....	127	36x4	36x8	Own K-41	4 x5½	25.6	L	FP	Own	Own	Mar	G	Sim	Rem	Own	D	Own K41	U	7	Own	Tim 6560	W	F	8.50	57.5	A	Tim 1542B	.....	Own	Det	Non	5520
G.M.C. K-71T	....	138	36x5	36x12	Own K71	4½x6	32.4	L	FP	Own	Own	Mar	G	Sim	Rem	Own	D	Own K71	A	7	Own	Tim 6666	W	F	10.3	88.8	A	Tim 1632B	.....	Own	Day	Non	8120
G.M.C. K-101T	....	138	36x5	36x14	Own K101	4½x6	32.4	L	FP	Own	Own	Mar	G	Sim	Rem	Own	D	Own K101	A	7	Own	Tim 6760	W	F	11.6	100.4	A	Tim 1632B	.....	Own	Day	Non	8880
Harvey WFT	3030	125	36x5	36x10	Bud ETU	4¼x5½	28.9	L	PC	MeC	Own	Str	G	Eis	Non	Ful	D	B-L 51	A	4	Spi	She W21	W	½	8.75	46.8	A	She D-370	Bea	Ros	Smi	Non	7030
Harvey WHT	4050	125	36x6	36x12	Bud YTU	4½x6	32.4	L	PC	MeC	Own	Str	G	Eis	Non	Ful	D	B-L 60	A	4	Spi	She W-32	W	½	10.2	54.8	A	She 4FA20	Bea	Ros	Smi	Non	8900
Kelly-Springfield K-33	2700	120	36x3½	36x6	Own K-33	3 7/16x5¼	24.1	L	PC	Pie	Lon	Zen	G	Eis	Del	B&B	P	B-L 51	A	4	Pet	Own K33	W	½	9.25	49.5	A	Own K33	Per	Gem	StM	Non	5450
Kelly-Springfield K-75	3600	124	36x5	36x10	Con L5	4¼x5½	28.9	L	FP	Pie	Own	Zen	G	Eis	Del	B&B	P	B-L 55	A	4	Pet	Cla 2H	I	D	9.00	48.1	D	Own K75	Mat	Ros	Cla	Non	6300
Kelly-Springfield K-76	3600	124	36x5	36x10	Con L5	4¼x5½	28.9	L	FP	Pie	Own	Zen	G	Eis	Del	B&B	P	B-L 55	A	4	Pet	Own K76	W	½	11.6	62.0	A	Own K76	Mat	Ros	StM	Non	6400
Kelly-Springfield K-41	4400	126	36x5	36x12	Own K-41	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Del	B&B	P	B-L 60	A	4	Pet	Cla 3H	I	D	11.6	62.0	D	Own K41	Per	Gem	Cla	Non	7740
Kelly-Springfield K-42	3900	126	36x5	40x5	Own K-42	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Del	B&B	P	B-L 60	A	4	Pet	Std 607-5	W	½	10.2	54.8	A	Own K-42	Per	Gem	Smi	Non	8100
Kelly-Springfield K-61	5000	126	36x6	36x7†	Own K-61	4½x6½	32.4	T	PC	Pie	Lon	Zen	G	Eis	Del	B&B	P	B-L 60	A	4	Pet	Cla 5H	I	D	10.2	54.8	D	Own K-42	Per	Gem	Smi	Non	9025
Mack AB 5-Ton	3400	122½	36x4	36x4†	Own AB	4¼x5	28.9	L	PS	Own	Own	Str	G	Spl	Non	Own	D	Own AB	J	4	Spi	Own AB	C	D	10.5	51.1	B	Own AB	Mer	Own	.....	Non	5200
Mack AC 7-Ton	4950	128	36x5	40x5†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	Non	Own	P	Own AC	J	4	Spi	Own AC	C	D	9.06	58.0	D	Own AC	Mer	Own	.....	Non	9200
Mack AC 10-Ton	5500	128	36x6	40x6†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	Non	Own	P	Own AC	J	4	Spi	Own AC	C	D	9.69	62.2	D	Own AC	Mer	Own	.....	Non	9570
Mack AC 13-Ton	5750	128	36x6	40x12	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	Non	Own	P	Own AC	J	4	Spi	Own AC	C	D	10.5	67.4	D	Own AC	Mer	Own	.....	Non	9950
Mack AC 15-Ton	6000	128	36x7	40x7†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	Non	Own	P	Own AC	J	4	Spi	Own AC	C	D	11.5	73.5	D	Own AC	Mer	Own	.....	Non	10300
Pierce-Arrow XB	3500	118	36x5	36x5†	Own XB	4 x5½	25.6	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own XB	A	4	Spi	Own XB	W	½	9.66	.....	A	Own	S.P	Own	Own	Non	6280
Pierce-Arrow WD	4700	118	36x6	36x6†	Own WD	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own WD	W	½	A	4	Spi	Own WD	W	½	8.10	.....	B	Own	S.P	Own	Own	Non	8490
Pierce-Arrow RF	5200	118	36x6	36x6†	Own RF	4½x6¾	32.4	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own RF	A	4	Spi	Own RF	W	½	10.0	.....	B	Own	S.P	Own	Own	Non	9540
Saurer	6500	Opt	40x6‡	40x7†	Own	4 11/16 x7 3/32	29.3	L	PS	Own	Own	Own	G	Sci	Non	Own	D	Own	U	4	Own	Own	B	F	7.87	50.0	B	Own	Own	Own	Own	.....	7500
Schacht 5 Ton	3400	129½	36x4	36x8	Wis UAU	4¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 5	A	5	Spi	Own G	W	F	8.66	41.2	B	Own G	She	Own	StM	Non	6200
Schacht 7 Ton	3800	129½	36x5	36x10	Wis UAU	4¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 7	A	8	Spi	Own G	W	F	9.66	45.8	B	Own G	She	Own	StM	Non	6700
Schacht 10 Ton	4400	131½	36x6	40x12	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 10	A	8	Spi	Own G	W	F	11.65	55.4	B	Own G	She	Own	StM	Non	8200
Schacht 13 Ton	4600	131½	36x6	40x12	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 13	A	8	Spi	Own G	W	F	14.0	66.5	B	Own G	She	Own	StM	Non	8400
Schacht 15 Ton	5000	131½	36x7	40x7	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own 15	A	8	Spi	Own G	W	F	14.0	66.5	B	Own G	She	Own	StM	Non	8700
Sterling W-5-5 Ton	3905	130	36x4	36x4†	Own DU	4 3/16x5¾	30.6	L	PC	Wau	Own	Zen	V	Eis	Bos	B-L	D	B-L 35	A	4	Spi	Tim 6566	W	F	7.20	38.5	A	Tim 1544B	Mat	Ros	Mod	Non	5450
Sterling W-7-7½ Ton	4805	148	36x5	40x5†	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	Bos	H-S	O	Own W	A	3	Spi	Tim 6666	W	F	8.70	39.2	A	Tim 1632B	Mat	Ros	Hoo	Non	7675
Sterling W-10-10 Ton	5500	148	36x6	40x6†	Own EU	5 x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	Bos	H-S	O	Own W	A	3	Spi	Tim 6760	W	F	8.80	34.7	A	Tim 1732B	Mat	Ros	Hoo	Non	9075
Sterling C12–12 Ton	5850	143	36x5	40x6†	Own DU	4½x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	Bos	H-S	O	Own ELD	A	6	M-E	Own ELD	C	D	7.70	47.0	B	Tim 1632B	Mat	Ros	Hoo	Mon	7825
Sterling C-15-15 Ton	6100	148	36x6	40x6†	Own EU	5 x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	Bos	H-S	O	Own EHD	A	6	M-E	Own EHD	C	D	8.70	52.0	B	Tim 1732B	Mat	Ros	Smi	Non	9575
Sterling C-20-20 Ton	6600	148	36x6	40x7†	Own EU	5 x6¼	40.0	L	PC	Wau	Own	Zen	V	Eis	Bos	H-S	O	Own EHD	A	6	M-E	Own 7½	C	D	8.70	52.7	B	Tim 1732B	Mat	Ros	Smi	Non	10075
Walter FL 7 Ton	....	Opt	40x6	40x8	Own FY	4 x5¾	25.6	L	PC	Own	Own	Str	V	Wes	N-E	Own	D	Own FE	U	5	Own	Own FE	W	F	8.50	85.0	A	Own FE	.....	Ros	Day	Non	7700
Walter F 10 Ton	....	.....	40x7	40x8	Own DU	4½x6¼	32.4	L	PC	Own	Own	Zen	V	Wes	N-E	M-E	P	Own F	U	5	Own	Own F	W	F	8.50	85.0	A	Own F	.....	Ros	Day	Non	8500
Walter FR 15 Ton	....	Opt	40x8	40x7†	Own DY	4½x6¾	32.4	L	PC	Own	Own	Zen	V	Wes	N-E	Own	D	Own FR	U	5	Own	Own FR	W	F	8.50	85.0	A	Own FR	.....	Ros	Day	Non	9200

Manufacturers and Models Included in the Specification Tables

List Includes Manufacturers of Buses and Electric Trucks

Manufacturers Who Distribute Nationally

Note: This grouping of the manufacturers has been made from the best information at hand. Manufacturers are invited to furnish us with further information in relation to their distribution which will enable us to make this grouping as correct as possible.

Acme—1½, 2, 2½, 3, 4, 5, 6¼—Bus—Acme Motor Truck Co., Cadillac, Mich.
American-LaFrance—2½ 3½, 5, 6, 7—T.T.—American-LaFrance Fire Engine Co., Inc., Elmira, N. Y.
Armleder—1½, 2½, 3½—O. Armleder Motor Truck Co., Cincinnati, Ohio.
Atterbury—1½, 2½, 3½, 5—Atterbury Motor Car Co., Buffalo, N. Y.
Autocar—1, 1¼, 1½, 2, 2½, 3, 4, 5, 6—T.T.—Autocar Co., Ardmore, Pa.
Bessemer—1, 1½, 2½, 4—Bessemer Motor Truck Co., Plainfield, N. J.
Bethlehem—1, 2, 2½, 3½—Bethlehem Motors Corp., Allentown, Pa.
Bridgeport—1½, 2½, 4—Bus—Bridgeport Motor Truck Corp., Stratford, Conn.
Brockway—1, 1½, 2½, 3½, 5—Bus—Brockway Motor Truck Corp., Cortland, N. Y.
C. T. Elec.—½, ¾, 1, 2, 3, 3½, 5—Commercial Truck Co., Phila., Pa.
Chevrolet—½, 1—Chevrolet Motor Co., G. M. C. Bldg., Detroit, Mich.
Clydesdale—1¼, 2½, 3½, 5, 7—Clydesdale Motor Truck Co., Clyde, Ohio.
Commerce—1, 1¼, 1½, 2½—Bus—Commerce Motor Truck Co., Ypsilanti, Mich.
Day-Elder—1½, 2, 2½, 3, 4, 5-6—Bus—Day-Elder Motors Corp., Newark, N. J.
Defiance—1¼, 1½, 2, 3—Defiance Motor Truck Co., Defiance, Ohio.
Diamond T—1, 1¼, 1½, 2½, 3½, 5—Diamond T Motor Car Co., Chicago, Ill.
Dodge Brothers—¾—Dodge Brothers, Inc., Detroit, Mich.
Double Drive—3—Double Drive Truck Co., Benton Harbor, Mich.
Duplex—1, 1½, 2, 2½, 3½—Bus—Duplex Truck Co., Lansing, Mich.
F. W. D.—3—Four-Wheel Drive Auto Co., Clintonville, Wis.
Fageol—2, 3, 4, 6—Bus—Fageol Motors Co., Oakland, Cal.
Federal—1, 1½, 2, 2½, 4, 5—Bus—T.T.—Federal Motor Truck Co., Detroit, Mich.
Fifth Avenue—Bus—Fifth Avenue Coach Co., New York City.
Ford—1—Ford Motor Co., Highland Park, Mich.
Front Drive—1½—Double Drive Truck Co., Benton Harbor, Mich.
G. M. C.—1, 2½, 3½, 5—T.T.—General Motors Truck Co., Pontiac, Mich.
Garford—1, 1½, 2½, 4, 5, 7½—Bus—Garford Motor Truck Co., Lima, Ohio.
Gary—1, 2, 2½, 3, 3½, 5—Gary Motor Corp., Gary Ind.
Gotfredson—1, 1½, 2, 3, 4, 5—Gotfredson Truck Corp., Detroit, Mich. Gotfredson Truck Corp., Ltd., Walkerville, Ont.
Graham—1, 1½—Graham Brothers, Detroit, Mich.
Gramm-Bernstein—1, 1¼, 1½, 2, 2½, 3, 3½, 4, 5, 6—Gramm-Bernstein Motor Truck Co., Lima, Ohio.
Indiana—1, 1½, 2, 2½, 3½, 5—Indiana Truck Corp., Marion, Ind.
International—1, 1½, 2, 3, 5—Bus—International Harvester Co. of America, Chicago, Ill.
Kelland (Elec.)—½, ¾, 1—Kelland Motor Car Co., Newark, N. J.
Kelly-Springfield—1½-2, 2½, 3½-5, 5-7—Kelly-Springfield Motor Truck Co., Springfield, Ohio.
Kissel—1, 1½, 2½, 4—Bus—Kissel Motor Car Co., Hartford, Wis.
Krebs—1¼, 2½, 3½, 5—Krebs Motor Truck Co., Bellevue, Ohio.
Lansden (Elec.)—¾, 1, 2, 3½, 5, 6—Lansden Company, Danbury, Conn.
Larrabee-Deyo—1¼, 1½, 2½, 3½—Bus—Larrabee-Deyo Motor Truck Co., Inc., Binghamton, N. Y.
Maccar—1¼, 2, 3, 4, 5—Maccar Truck Co., Scranton, Pa.
Mack—1½, 2, 2½, 3½, 5, 6½, 7½—Bus—T.T.—International Motor Co., New York, N. Y.
Mason Road King—1½—Mason Motor Truck Co., Flint, Mich.
Master—1¼, 1½, 2½, 3½, 5, 5½—Bus—Master Motor Truck Mfg. Co. Chicago, Ill.
Menominee—1, 1¼, 1½, 2, 3½, 5—Bus—Menominee Motor Truck Co., Clintonville, Wis.
Nash—1, 2, 2½—Nash Motors Co., Kenosha, Wis.
Northway—1¼, 2, 3½—Northway Motors Corp., Natick, Mass.
O. B.—2, 3½, 5—O. B. Electric Vehicles, Inc., Long Island City, N. Y.
Oshkosh—2, 2½, 4—Oshkosh Motor Truck Mfg. Co., Oshkosh, Wis.
Overland—½—Willys-Overland Co., Toledo, Ohio.
Patriot—1, 2, 3—Patriot Mfg. Co., Havelock, Neb.
Penn—1, 2—Penn Motors Corp., Philadelphia, Pa.
Pierce-Arrow—2, 3, 4, 5, 6, 7½, T.T.—Bus—Pierce-Arrow Motor Car Co., Buffalo, N. Y.
Reo—1¼—Bus—Reo Motor Car Co., Lansing, Mich.
Republic—1¼, 1½, 2, 3, 4½—Bus—Republic Motor Truck Co., Inc., Alma, Mich. ¼
Rowe—2½, 3, 4, 5—Rowe Motor Mfg. Co., Lancaster, Pa.
Ruggles—¾, 1¼, 1½, 2, 2½, 3—Ruggles Motor Truck Co., Saginaw, Mich.
Sandow—1, 1½, 2, 2½, 3½, 5—Sandow Motor Truck Co., Chicago Heights, Ill.
Schacht—1½, 2, 2½, 3, 4, 5—G. A. Schacht Motor Truck Co., Cincinnati, Ohio.
Selden—1¼, 1½, 2½, 3, 3½, 5—Bus—Selden Truck Corp., Rochester, N. Y.
Service—1¼, 1½, 2, 3, 4, 6—Service Motors, Inc., Wabash, Ind.
Standard—1¼, 1½, 2½, 3½, 5, 6—Standard Motor Truck Co., Detroit, Mich.
Sterling—1½, 2, 2½, 3½, 5, 7½—Bus—Sterling Motor Truck Co., Milwaukee, Wis.
Stewart—1, 1¼, 1½, 2, 2½, 3½—Stewart Motor Corp., Buffalo, N. Y.
Transport—1, 1½, 2, 3½, 5—Transport Truck Co., Mt. Pleasant, Mich.
Traylor—1½, 2, 3, 5—Traylor Eng. & Mfg. Co., Allentown, Pa.
United—1, 1½, 2, 2½, 3, 3½—United Motor Products Co., Grand Rapids, Mich.
Walker(Elec.)—½, ¾, 1, 2, 3½, 5—Walker Vehicle Co., Chicago, Ill.
Ward (Elec.)—750 lb. to 7 Ton—Ward Motor Vehicle Co., Mt. Vernon, N. Y.
White—¾, 2, 3½, 5—Bus—White Co., Cleveland, Ohio.
Yellow Cab—¾, 1—Bus—Yellow Cab Mfg. Co., Chicago, Ill.

Manufacturers Who Distribute Locally

Acorn—2½, 4—Acorn Motor Truck Co., Chicago, Ill.
Ace—2½—Bus—American Motor Truck Co., Newark, Ohio (receiver).
Available—1½, 2, 2½, 3½, 5—Available Truck Co., Chicago, Ill.
Betz—1, 2½—Betz Motor Truck Co., Hammond, Ind.
Brinton—1½, 2½—Brinton Motor Truck Co., Philadelphia, Pa.
Buffalo—2, 3—Buffalo Truck and Tractor Corp., Clarence, N. Y.
Casco—1—Casco Motors, Inc., Sanford, Me.
Chicago—1½, 2½, 3½, 5—Chicago Motor Truck, Inc., Chicago, Ill.
Clinton—1¼, 2, 3, 4, 5 to 7—Bus—Clinton Motors Corp., Reading, Pa.
Columbia—1½, 2½, 3—Columbia Motor Truck Co., Pontiac, Mich.
Concord—1, 2, 2½, 3—Abbott-Downing Truck & Body Co., Concord, N. H.
Corbitt—¾, 1, 1½, 2, 2½, 3, 4, 5—Corbitt Motor Truck Co., Henderson, N. C.
De Martini—1½, 2, 3, 4—De Martini Motor Truck Co., San Francisco, Cal.
Diehl—1, 1½—Diehl Motor Truck Works, Philadelphia, Pa.
Dixon—1½, 2, 2½, 3½, 5—Dixon Motor Truck Co., Altoona, Pa.
Dorris—1, 2½, 3½—Dorris Motor Car Co., St. Louis, Mo.
Eagle—1¼, 2—Eagle Motor Truck Corp., St. Louis, Mo.
Fulton—1, 2—Fulton Motors Corp., Farmingdale, N. Y.
G. W. W.—1½, 2—Wilson Truck Mfg. Co., Henderson, Iowa.
Grass Premier—1, 1½, 2, 2½, 3½—Grass Premier Truck Co., Sauk City, Wis.
Guilder—1½, 2, 3, 4, 5, 6—Bus—Guilder Engineering Co., Poughkeepsie, N. Y.
Harvey—2½, 3½, 6, 10—T.T.—Harvey Motor Truck Co., Harvey, Ill.
Hawkeye—1½, 2½, 3½—Hawkeye Truck Co., Sioux City, Iowa.
Independent—1, 1½, 2½—Independent Motor Truck Co., Inc., Davenport, Ia.
Kalamazoo—Kalamazoo Motor Corp., Kalamazoo, Mich.
Kankakee—2½—Kankakee Motor Truck Co., Kankakee, Ill.
Kearns—1, 2, 3½, 5—Kearns-Dughie Motors Co., Danville, Pa.
Kenworth—1½, 3, 3½—Kenworth Motor Truck Corp., Seattle, Wash.
Kimball—2, 2½, 4, 5—Kimball Motors Corp., Los Angeles, Cal.
King Zeitler—1, 1½, 2½, 3½, 5—King Zeitler Co., Chicago, Ill.
Kleiber—1½, 2½, 3½, 5—Kleiber Motor Truck Co., San Francisco, Cal.
Lange—1½, 2½, 3½—Lange Motor Truck Co., Pittsburgh, Pa.
Luedinghaus—1, 1½, 2½, 3½, 5—Luedinghaus-Espenschied Wagon Co., St. Louis, Mo.
Moreland—1, 1½, 2, 3, 5—Moreland Motor Truck Co., Burbank, Cal.
National—2, 2½, 3, 3½, 4—National Steel Car Corp., Ltd., Hamilton, Ont., Canada.
Nelson-LeMoon—1, 1½, 2, 2½, 3½, 5—Nelson & LeMoon, Chicago, Ill.
Netco—2, 2½, 3, 4—New England Truck Co., Fitchburg, Mass.
Noble—1, 1½, 2, 2½, 3, 3½, 4—Noble Motor Truck Co., Kendallville, Ind.
Ogden—1, 1½, 2½, 3½, 5—Ogden Truck Co., Chicago, Ill.
O. K.—1, 1½, 2, 2½, 3½—Nolan Truck Co., Okay, Okla.
Old Reliable—2½, 3½, 5, 6—Old Reliable Motor Truck Co., Chicago, Ill.
Oneida—2, 2½, 3½, 5—Oneida Manufacturing Co., Green Bay, Wis.
Parker—1, 1½, 2, 2½, 3, 3½, 5—Bus—Parker Motor Truck Co., Milwaukee, Wis.
Philadelphia Motor Coach—Bus—Phila. Motor Coach Co., Phila., Pa.
Pioneer—1—Pioneer Truck Co., Chicago, Ill.
Power—1½, 2½, 3½—Power Truck & Tractor Co., St. Louis, Mo.
Rainier—¾, 1, 1½, 2, 2½, 3½, 5, 6—Rainier Motor Corp., Long Island City, N. Y.
Red Ball—3—Red Ball Transit Co., Indianapolis, Ind.
Rumely—1½—Advance Rumely Thresher Co., Laporte, Ind.
Sanford—1, 1½, 2½, 3½, 5—Sanford Motor Co., Syracuse, N. Y.
Saurer—6½, T.T.—Adolph Saurer, Inc., New York, N. Y.
Six Wheel Bus—The Six Wheel Co. of Philadelphia, Philadelphia, Pa.
Steinmetz—Steinmetz Electric Motor Car Corp., Arlington, Baltimore, Md.
Super Truck—2½, 3½, 5—O'Connell Motor Truck Co., Waukegan, Ill.
Traffic—1½, 2, 3—Traffic Motor Truck Corp., St. Louis, Mo.
Triangle—1, 1½, 2, 2½—Triangle Motor Truck Co., St. Johns, Mich.
Twin City—2½, 3, 3½—Minneapolis Steel and Machinery Co., Minneapolis, Minn.
Union—1½, 2½, 4, 6—Bus—Union Motor Truck Co., Bay City, Mich.
U. S.—1¼, 1½, 2½, 3, 4, 5-7—United States Motor Truck Co., Cincinnati, Ohio.
Wachusett—1, 1½, 2, 2½—Wachusett Motors, Inc., Fitchburg, Mass.
Walker Johnson—1½, 2½, 3—Walker Johnson Truck Co., Woburn, Mass.
Walter (Elec.)—T.T.—Walter Motor Truck Co., Long Island City, N. Y.
Ward La France—2½, 3½, 5—Ward La France Truck Corp., Elmira, N. Y.
Wilcox—1, 1½, 2½, 3½, 5—Wilcox Trux, Inc., Minneapolis, Minn.
Witt-Will—1½, 2, 2½, 3, 4, 5—Witt-Will Co., Inc., Washington, D. C.

DETAILED MOTOR

This Table Comprises Motor Bus Chassis Which Are Designed

For Other Chassis Which Are Recommended and Adaptable for Bus Use See Models

Line Number	MAKE AND MODEL	GENERAL								ENGINE								ELECTRICAL SYSTEM					NORMAL SPEED	
		Seating Capacity	Chassis Price	Weights			Wheelbase	Tread		Make and Model	Number of Cylinders Bore and Stroke	Rated Horse Power N.A.C.C.	Valve Arrangement	Oiling System	Radiator Make	Fuel System		Ignition System Make	Generator and Starter Make	Battery			High W. P. H.	Low M. P. H.
				Chassis Only	Chassis with Body	Recommended Body Allowance		Front	Rear							Carburetor Make	Fuel Feed			Make	Model	Voltage and Amp. Hr. Cap.		
1	Ace C	30	4800	6500	11500	5000	204	70	80½	Cont 6B	6–3¾x6	33.7	L	PC	Own	Zen	V	Eis	Rem	USL	3HVX8X	6–110	35	6.0
2	Acme K	30	....	6900	9900	3000	200	58½	74	Cont 6B	6–3¾x5	33.7	L	PC	Own	Zen	V	Eis	Del	Wil	SJRT4	6–111	30	5.7
3	Bridgeport 45	30	3850	5500	....	....	178	60	72	Buda EBU	4–4¼x5½	28.9	L	PC	....	Zen	V	Eis	Bos	Wil	....	6–120	....	....
4	Brockway EB	20	....	3200	....	....	156	56	56	Wisc SU	4–4 x5	25.6	I	PC	G&O	Zen	V	Eis	L-N	Exi	....	6–105	....	....
5	Brockway J3	25	....	6400	9280	2880	185	66¼	71	Cont 6B	6–3¾x5	33.7	L	PC	....	Zen	V	Eis	L-N	Exi	....	12–220	25	5.0
6	Clinton 65B	30	4075	5925	8700	2725	184	58½	58½	Bud EBU	4–4¼x5½	28.9	L	PC	Own	Zen	V	Bos	Bos	Pol	611SHK	6–90	30	3.0
7	Clinton 65BS	35	4800	6600	9600	3000	220	68	76¾	Buda YBU	4–4½x6	32.4	L	PC	Own	Zen	V	.....	Bos	Pol	611KPC	6–130	35	3.0
8	Commerce 20	14	....	4300	7300	3000	189	56	58	Con 6B	6–3¾x5	33.7	L	PC	Lon	Zen	V	Bos	Bos	Wil	SJR6	6–177	35	7.0
9	Day-Elder 20	20	....	5200	.....	2500	168	56	58	Cont K4	1–4¼x5¼	27..	..	FP	Bus	Zen	V	Eis	Bos	Wil	SJRT6	6–153	35	10.0
10	Day-Elder 25	25	....	5600	.....	3000	180	58	58½	Buda EBU	1–4¼x5½	28..	..	PC	Bus	Zen	V	Eis	Bos	Wil	SJRT6	6–153	35	7.0
11	Day-Elder 30	30	....	6000	.....	3500	192	68½	74	Cont 6B	6–3¾x5	33.7	L	PC	Bus	Zen	V	Eis	Bos	Wil	SJRT6	6–153	35	7.0
12	Duplex FB	23	....	5500	.....	3000	181	58	72	Buda EBUI	4–4¼x5½	28.9	L	PC	Mod	Zen	V	Eis	Wes	Pol	.....	6–220	35	10.0
13	Fageol Parlor Car	22	5365	6450	10200	....	218	70	76½	HaS 50	1–4¼x5½	28.9	I	PC	Lon	Zen	V	Del	Del	Exi	.....	6–240	35	7.0
14	Fageol Street Car	29	6315	6700	10350	....	230	70	70	HaS 75	6–4¼x5½	43.6	I	PC	Lon	Zen	V	Del	Del	Exi	.....	12–240	35	6.0
15	Federal	18	....	4200	.....	1800	160	56	59½	Cont 6M	4–3⅜x4½	27.3	L	PC	Lon	Zen	V	Eis	Rem	Exi	3LXRE	6–185	35	7.0
16	Federal	25	....	5450	.....	2500	190	60	60	Cont 6B	1–3¾x5	33.7	L	PC	Mod	Zen	V	Eis	Rem	Exi	3LXRE	6–185	35	6.0
17	Fifth Ave. J	29	6900	5660	8235	2575	172	58¼	71¼	Yell EZ	4–4 x6	25.6	X	PC	Own	Zen	V	Eis	N-E	Wil	STRN27	12–90	30	7.5
18	Fifth Ave. L	51	8860	6670	.....	.....	174¾	67	77½	Yell EZ	4–4 x6	25.6	X	PC	Own	Zen	G	Eis	N-E	Wil	STRN27	12–90	....	....
19	Garford 51D	29	....	6500	9900	3400	187	68	75¾	Buda YBU	1–4½x6	32.4	L	PC	Own	Str	V	Spl	Rem	Wil	STRN6	6–190	35	5.0
20	Garford 726	25	....	4800	7800	3000	168	56	65½	Buda EBU	1–4¼x5½	28.9	L	PC	Own	Str	V	Spl	Rem	Wil	STRN6	6–190	35	5.4
21	Guilder 30	30	4500	5600	8800	3600	191	64	70	Bud EBU	1–4¼x5½	28.9	L	FP	G&O	Zen	V	Eis	L-N	Wil	SJRT28	12–104	30	5.0
22	International 33	18	....	....	.....	....	150	56	56½	Own 33	1–4¾x5	22.5	I	Sp	.....	Own	G	Bos	Rem	Pol	.....	6–100	19	....
23	International 53	29	....	....	.....	....	190	64½	65	Own 53	1–4¼x5	28.9	I	Sp	.....	Own	V	Bos	Rem	Pol	.....	6–200	34	....
24	Kissel	18	4500	5200	7780	2400	202	64½	66	Own 4–36	4–4¼x5½	28.9	L	Sp	Spa	Str	V	Bos	Rem	Wil	SJRT6	6–153	40	....
25	Larrabee X-2	16	1910	3450	4850	1400	155	56	56	Cont 8R	6–3⅜x4½	27.3	L	PC	Fed	Zen	V	Bos	Bos	Exi	3XE15	6–80	40	8.0
26	Larrabee XH3	21	3600	4670	7670	3000	186	62	66	Cont 6B	6–3¾x5	33.7	L	PC	Fed	Zen	V	Bos	Bos	Exi	36XRE25	6–240	35	7.0
27	Mack AB	24	4350	6300	11150	4850	230½	68	63⅜	Own AB	4–4¼x5	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXRE13	12–120	41	10.0
28	Mack AB	25	4250	6100	9350	3250	196	68	63⅜	Own AB	4–4¼x5	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXRE13	12–120	41	10.0
29	Master	30	....	6000	9500	4500	194	59	59	Buda EBU	1–4¼x5½	28.9	L	PC	Chi	Zen	V	Eis	Wes	Wil	.....	12–	25	5.0
30	Menominee T	16	2600	4290	6400	2100	175	56	56	Wisc Y	6–3⅜x5	27.3	H	PC	....	Zen	V	Bos	Bos	Wil	SJRT6	6–153	38	....
31	Menominee DB	25	4400	6020	9100	3200	186	68	73	Wisc TAU	4–4 x6	25.6	L	PC	Own	Zen	V	Eis	Bos	Wil	SJRT6	6–153	32	6.0
32	Moreland RC	16	2280	3850	5850	2000	180	56	57¼	Herc OBX	1–4 x5	25.6	L	PC	Own	Zen	V	Spl	A-L	Hob	6HTXR15A	6–140	25	....
33	Moreland EC	20	3780	4590	7590	3000	178	61	58	Cont K4	1–4⅛x5¼	27.3	L	FP	Own	Sch	V	Spl	Spl	Hob	6HTXR15A	6–140	25	....
34	Moreland AC	25	4700	5660	9160	3500	187	68	69	Cont L4	1–4½x5½	32.5	L	FP	Own	Sch	V	Spl	Spl	Hob	6HTXR15A	6–140	25	....
35	Parker B23B	16	1400	2700	4600	1900	131	58	58	Buda WTU	1–3¾x5½	22.5	L	PC	Own	Zen	V	Wes	Wes	Glo	611	6–80	35	9.0
36	Parker E24B	18	2500	3600	5800	2300	150	58	58	Wisc SU	4–4 x5	25.6	I	PC	Own	Zen	V	Wes	Wes	Glo	611	6–80	40	10.0
37	Phila. Motor Coach P	65	6500	8750	14650	5900	216	72	75	Own P	6–4 x6	38.4	I	FP	G&O	Zen	V	N-E	N-E	Exi	6MVE13	12–180	25	....
38	Pierce-Arrow Z	30	4750	6400	.....	....	220	68	75⅝	Own	4 x5½	38.0	T	FP	Own	Own	P	Del	Wes	Wil	SJRN6	.....	50	3.0
39	Reo W	21	2350	3650	7150	3500	176	56	57¼	Own W	6–3 1/16x5	24..	F	PS	Own	Sch	V	N-E	N-E	Wil	SJRT6	6–153	37	10.0
40	Republic 81	15	....	....	.....	2000	185	60	58	Lyc	4–4 x5	25.6	L	PC	Own	Str	V	Bos	Bos	USL	.....	6–109	35	....
41	Selden 52	30	....	7200	10200	3000	195	68	74	Cont L4	1–4¼x5½	32.4	L	FP	Lon	Str	V	Bos	N-E	Pol	615KPN	12–	25	6.2
42	Selden	..	....	7200	10200	3000	195	68	74	Cont 6B	6–3¾x5	33.8	L	PC	Lon	Zen	V	Eis	N-E	Pol	615KPN	12–300	35	6.2
43	Sterling GB2	29	....	6100	10750	4550	198	64¼	58½	Own CU	4–4⅜x5¾	30.6	L	PC	Own	Zen	V	Eis	Bos	Gou	ASLR632	6–132	35	6.20
44	Six Wheel Bus	27	....	....	.....	....	194	....	....	Cont 6B	6–3¾x5	50.0	..	....	....	Str	..	Eis	N-E	Wil	.....	12–152	....	....
45	Union GC	30	....	6500	10000	3500	233½	60	60	Cont 6	4–4¾x6	....	..	....	McC	Zen	V	Bos	Bos	Pol	.....	6–170	35	5.0
46	Union EC	19	....	4500	7000	2500	198	58	58	Cont 6	4–3⅜x4½	....	..	....	McC	Zen	V	Bos	Bos	Pol	.....	6–137	40	5.0
47	White 50A	25	4950	5395	.....	....	198	58½	67¾	Own 50A	1–4¼x5¾	28.9	L	FP	.....	Zen	V	.....	L-N	Opt	.....	12–	..	....
48	Yellow Coach Z	67			.....		192	71	73¼	Yell EZ	4–4 x6	25.6	X	PC		Zen	V							

*—Pneumatic
†—Dual Pneumatic
‡—Solid
§—Dual Solid
A-K—Atwater-Kent
A-L—Auto-Lite
Arc—Archibald
B&B—Borg & Beck
Bim—Bimel
B-L—Brown-Lipe
Bud—Budd
Buda—Buda
Blo—Blood
Bos—Bosch
Bus—Bush
Cla—Clark
Col—Columbia
Cont—Continental
D—Multiple Dry Disk
Day—Dayton
Del—Delco
E-D—External Driveshaft
Dtl—Detlaff
E-R—External Rear Wheel
Eis—Eisemann
Exi—Exide
F—Head & Side (Engine)
F—Full Floating
½—½ Floating
Fed—Fedders
Fli—Flint
Ful—Fuller
FP—Full Pressure to all Bearings, including wrist pins
G—Gravity
Glo—Globe
Gem—Gemmer
G&O—G & O
Gou—Gould
Hob—Hobbs
Hink—Hinkley
HaS—Hall Scott
Herc—Hercules
I—In Head
Ig—Internal Gear
I-F—Internal Four Wheels
Ind—Indestructible
I-R—Internal Rear Wheels

ELECTRIC COM

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight—Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	C assis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Autocar E 1F	.....	.....	.....	.....	2400	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x4	34x5	Ross	107	60
Autocar E 2D	.....	.....	.....	.....	2800	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x5	34x6	Ross	120	60
Autocar E 3H	.....	.....	.....	.....	3200	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x5	36x8	Ross	128	60
Autocar E 4Y	.....	.....	.....	.....	4000	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x6	36x6§	Ross	138	60
Autocar E 5M	.....	.....	.....	.....	4300	.....	.....	.....	G-E	G-E	...	R	Own	Row	36x7	36x7§	Ross	138	60
C-T D-1	5400	2200	.....	.....	.....	14	A	55	G-E	Own	4	Own	Flot	Shel	36x3	36x3½	W	100	69
C-T B-1.5	6100	2300	.....	.....	.....	14	A	60	G-E	Own	4	Own	Flot	Shel	36x3	36x4	W	91½	65
C-T D-1.5	6200	2300	.....	.....	.....	14	A	60	G-E	Own	4	Own	Flot	Shel	36x3	36x4	W	116	71
C-T B-2	7300	2400	.....	.....	.....	14	A	50	G-E	Own	4	Own	Flot	Shel	36x3½	36x5	W	101	66
C-T D-2	7300	2400	.....	.....	.....	14	A	50	G-E	Own	4	Own	Flot	Shel	36x3½	36x5	W	124	70
C-T B-4	11750	4000	.....	.....	.....	12	A	50	G-E	Own	4	Own	Flot	Shel	36x4	36x4†	W	116	68
C-T C-6	14400	4300	.....	.....	.....	10	A	45	G-E	Own	4	I	D	Shel	36x4	36x4†	W	122	70
C-T C-7	16900	5000	.....	.....	.....	10	A	45	G-E	Own	4	I	D	Shel	36x5	36x5†	W	126	65
C-T A-7	17700	5800	.....	.....	.....	11	A	45	G-E	Own	4	I	D	Shel	36x6	36x4†	W	122	60
C-T A-10	22250	6500	.....	.....	.....	10	A	45	G-E	Own	4	I	D	Shel	36x7	36x5†	W	132	59
Kelland AT	.....	1950	1000	1500	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BT	.....	2050	1500	2000	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CT	.....	2150	2000	2500	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	102	60
Kelland AH	.....	2500	1000	1500	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3	36x3	Hin	106	60
Kelland BH	.....	2600	1500	2000	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x3½	Hin	106	60
Kelland CH	.....	2700	2000	2500	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x4	Hin	106	60
Kelland ATS	.....	2200	1000	1500	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BTS	.....	2300	1500	2000	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CTS	.....	2400	2000	2500	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	114	60
Lansden Century	.....	1700	.....	1250	1600	15	S	60	G-E	Own	4	R	Flot	SP	32x4½	32x4½	Ross	108	50
Lansden Century	.....	1950	.....	2000	1850	15	S	60	G-E	Own	4	R	Flot	SP	33x5	33x5	Ross	112	50
Lansden Marathon	...	2900	...	2000	1850	14	A	50	G-E	Own	4	C	D	SP	36x3½	36x4	Bay	108	60

BUS SPECIFICATIONS

and Sold Exclusively for Passenger Transportation

Having Sign (§) in the "COMMERCIAL CAR SPECIFICATIONS"

Line Number	TRANSMISSION: Clutch Type and Make	Gearset Make and Model	Gearset Location	Gearset Number of Forward Speeds	Universal Make	REAR AXLE: Make and Model	Final Drive	Type	Gear Ratio: Total in High	Gear Ratio: Total in Low	Service Brake Type & Location	Front Axle Make and Model	Steering Gear Make	TIRES AND WHEELS: Tires (in.) Front	Tires (in.) Rear	Wheels—Make	Rims—Make	DIMENSIONS (in.): Floor Height	Turning Radius	Overall Length	Overall Width	Clearance from Ground
1	D. B. L.	B. L. 55	U	4	Pet	Tim 6516	Wo	F	5.4	26.6	I-R	Tim 1550	Ros	36x6	38x7	Day	Fir	27½	34	316	90	9¾
2	P. B. & B.	Cot RU	U	4	Blo	Tim 6511	Wo	F	6.8	35.3	I-R	Tim 1540B	Ros	36x6*	36x6†	Bud	Fir	27	38	312	90	5
3	D. B. L.	B. L. 50	U	4	Spi	Tim 6560	Wo	F	6.7	.....	I-R	She Spec	Ros	36x6*	36x6†	Bud	.....	31½	.....	.....	.....	.....
4	D. B. L.	B. L. 35	U	4	Spi	Col 52028	SP	F	5.1	.....	E-R	Col 5084	Gem	30x5*	32x6*	Ind	Fir	28½	.....	.....	.....	.....
5	D. B. L.	B. L. 55	U	4	Spi	Cla 3D	Ig	F	7.0	.....	E-D	Shu 610B	Gem	36x6*	36x6†	Sew	Fir	27½	31⅜	295¼	84	10
6	D. B. L.	B. L. 55	S	4	M-E	Tim 6566	Wo	F	6.5	34.8	I-R	Tim1544B	Ros	36x6*	36x6†	Bud	Fir	30	37	270	75½	9½
7	D. B. L.	B. L. 55	S	4	M-E	Tim 6516	Wo	F	6.7	36.1	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	26	27	286	90	7
8	D. B. L.	B. L. 55	A	4	.....	Tim 6460	Wo	½	6.0	.....	.....	Tim 1452	Ros	32x6	32x6	Bim	Fir	30	27	231	74	9
9	D. B. L.	B. L. 35	U	3	Spi	Tim 6462	Wo	½	6.5	21.8	I-R	Col 7018	Gem	36x6*	38x7*	Van	Fir	32	30	237	70½	11
10	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	F	6.7	36.1	I-R	Tim 1544	Gem	36x6*	40x8*	Van	Fir	32	30	260	75½	11
11	D. B. L.	B. L. 51	U	4	Spi	Tim 6511S	Wo	F	6.8	36.4	I-R	Shu 610	Gem	36x6*	36x6*	Van	Fir	25	27	271½	90	6½
12	D. B. L.	B. L.	U	4	Pet	Vul 4	Wo	F	6.5	32.1	I-R	Shu	Ros	34x5	34x5†	Mot	Fir	27	28	268	82	9
13	D. B. L.	B. L. 50	U	4	Spi	Tim 6466	Wo	F	4.6	19.7	I-R	Tim 1524	Ros	36x6*	36x6†	Bud	.....	19¾	38	312	89	7½
14	D. B. L.	B. L. 55	U	4	Spi	Tim 6466	Wo	F	4.6	19.7	I-R	Tim 4550	Ros	36x6	38x7	Bud	.....	20¾	38½	324	89	7½
15	P. B. & B.	Own	S	4	Spi	Tim 6460	Wo	½	6.5	32.5	-R	Own	Gem	35x5*	44x7*	Smi	Fir	28	28	245	.....	10
16	P. B. & B.	Det R400	S	4	Spi	Tim 6560	Wo	F	6.7	39.8	.....	Own	Gem	36x6*	36x8*	Smi	Fir	30	28	266⅜	.....	10
17	P. Own	Own J	S	4	Sne	Tim 6412	Wo	½	5.4	21.6	I-R	Tim 1523	Ros	36x6	36x6	Own	.....	29½	31	277	87½	7
18	P. Own	Own L	S	4	Sne	Own L	Ig	F	6.6	.....	E-D	Own L	Ros	36x5‡	36x5§	Own	.....	26	.....	.....	.....	.....
19	D. Own	Own 51D	S	4	Spi	Tim 6511G	Wo	F	5.4	26.1	I-R	Tim 1550	Ros	36x6*	36x6†	Day	Fir	28¼	30	295	91	7
20	D. Own	Own 726	S	4	Spi	Tim 6560	Wo	F	5.4	21.6	I-R	Own	Ros	32x6*	32x6†	Bud	Fir	32	30	236	78½	7½
21	D. B. L.	B. L. 51	U	4	M-E	Wis 68C	R	.....	5.8	.....	E-D	Shu 5550B	Ros	36x6	36x6†	Bud	.....	26	70	300	83	11
22	D. Own	Own 33	U	3	Own	Own 33	Ig	F	.....	.....	I-R	.....	Own	36x4	36x6	Own	.....	.....	.....	.....	.....	.....
23	D. Own	Own 53	U	4	Own	Own 53	Ig	F	.....	.....	I-F	.....	Own	36x6*	36x6†	Bud	.....	34½	.....	.....	.....	.....
24	D. B. L.	B. L. 35	U	4	Spi	Wis 60B	R	...	5.8	19.0	-R	Shu 610	Ros	34x7*	34x7*	Whi	Gdy	24	.....	252	76	8
25	D. B. L.	B. L. 31	U	3	Sne	Sal D	Be	¾	7.7	27.6	E-R	Sal	Gem	34x5	34x5	Ind	Fir	29	27	220	70	11
26	D. B. L.	B. L. 31	U	3	Spi	She	W	½	5.5	26.4	I-R	Shu5550B	Ros	32x6	32x6†	Bud	.....	25	28	262	86	9
27	D. Own	Own AB	U	4	Spi	Own AB	R	F	a6.7	21.5	I-R	Own AB	Own	36x6*	36x6*	Bud	.....	28¾	32½	310	84	10¼
28	D. Own	Own AB	U	4	Spi	Own AB	R	F	a6.7	21.5	I-R	Own AB	Own	32x6*	32x6*	Bud	.....	24¾	28¼	304	88	8¼
29	D. Ful	Ful GU7	U	4	Spi	Wal 25A	R	F	7.6	37.0	-R	Shu 610	Ros	36x6	10x8	StM	Fir	26	33½	.....	.....	.....
30	D. Det	Cot AAU	U	3	Spi	Wis 40R	R	½	.....	.....	I-R	.....	Ros	32x6*	32x6†	Whi	.....	23½	.....	.....	.....	.....
31	D-Det	Cot AU	U	4	Spi	Wis 120K	R	½	6.1	32.0	I-R	Tim 1550	Ros	36x6*	36x6†	Ind	Fir	26	30	256	86	10
32	D. B. L.	B. L. 30	U	3	Pet	Tim 5512	Wo	½	5.5	22.0	E-R	Tim 1250	Ros	32x6	32x6	Own	Gdy	23½	.....	.....	.....	7
33	D. B. L.	B. L. 51	U	4	Pet	Tim 6410	Wo	½	6.0	32.1	I-R	Tim 1550	Ros	44x5*	34x5†	Bud	.....	24½	.....	.....	.....	8½
34	D. B. L.	B. L. 51	U	4	Pet	Tim 6511	Wo	F	6.0	32.1	I-R	Tim 1550	Ros	36x6*	36x6†	Bud	.....	25½	.....	.....	.....	9
35	D. Ful	Ful SU2	U	3	Blo	Fli 72BA	Be	F	5.5	22.0	E-R	Fli 72BA80	Lav	32x6*	32x6*	Whi	Fir	30	21	204	66	10
36	D. Ful	Ful SU2	U	3	Blo	Fli 72BA	Be	F	4.9	20.0	E-R	Con 600	Lav	32x6*	32x6*	Whi	Fir	28	25	218	66	10
37	D. B. L.	B. L. 60	U	4	Spi	Atl LC-IR	Ig	D	7.0	28.0	-R	Shu 650B	Ros	34x6‡	34x6†	Ind	.....	20⅛	25	333⅜	90	8
38	Own	Own W	A	4	Spi	Own W	Wo	F	6.0	32.0	-D	Own	Own	36x6	36x6†	Bud	.....	28	40	303	89	8
39	Own	Own W	S	3	Own	Own W	SP	½	5.7	21.0	E-R	Own W	Own	30x5	30x5†	Bud	.....	25¼	31	197	87	8
40	Ful	Ful	U	3	Spi	Tor	Ig	D	6.2	25.0	E-D	Own	Jac	34x7	34x7	Van	Fir	21	.....	270½	67¼	6½
41	D. B. L.	B. L.	S	4	Spi	Tim	Wo	F	7.7	31.0	I-R	Tim	Gem	36x5	36x5	Arc	Fir	29⅛	33	309	91	7
42	D. B. L.	B. L.	S	4	Spi	Tim	Wo	F	7.7	31.0	-R	Tim	Gem	36x5	36x5	Arc	Fir	29⅛	33	309	91	7
43	D. B. L.	B. L. 50	U	4	Spi	Tim 6566	Wo	F	5.4	28.9	I-R	Tim 1544B	Ros	36x6*	36x6†	Bud	.....	34⅛	.....	.....	.....	10⅝
44	B-L	B-L	U	....	Blo	Tim 6212	Wo	.....	.....	.....	I-R	Tim 1550	Ros	32x6*	32x6*	Bud	.....	.....	.....	.....	.....	.....
45	Ful	Ful 4	....	.....	.....	Wis SF	R	....	.....	.....	.....	Tim	Jax	32x6	32x6†	Bud	.....	.....	.....	.....	.....	.....
46	Ful	Ful 4	....	.....	.....	Cla SF	SP	....	.....	.....	.....	Shu	Jax	34x7	34x7	.....	.....	.....	.....	.....	.....	.....
47	Own	Own 50A	U	4	Spi	Own 50A	R	½	5.6	23.3	-R	Own 50A	Own	36x6	36x6†	Bud	Fir	28¼	36	274¾	81⅝	9
48	P. Own	Own 2	S	4	.....	Own Z	Wo	½	6.2	...	I-F	.....	Own	34x5†	34x5§	.....	.....	.....	.....	.....	.....	.....

Joh—Johnson
Kel—Kells
L—L-Head
Lav—Lavine
L-N—Leece-Neville
Lon—Long
M&E—Merchant & Evans
McC—McCord
Mot—Motor Wheel Corp.
N-E—North-East
NP—No Provision
Opt—Optional
P—Single Plate
Pet—Peters
PC—Pressure to all Crankshaft & connecting Rod Bearings—Splash to other parts
Pol—Prest-O-Lite
R—Double Reduction
Ros—Ross
Rem—Remy
R&V—R & V Knight
Sal—Salisbury
Sew—Sewell
Sne—Snead
SP—Spiral Bevel
S—Separate Unit
Spi—Spicer
She—Sheldon
Spa—Sparton
StM—St. Marys
Shu—Shuler
Str—Stromberg
Sp—Splash
Tim—Timken
U—Unit with Engine
Van—Van Motor Wheels
V—Vacuum
Wal—Walker
Whi—Whitcomb
Wes—Westinghouse
Wil—Willard
Wisc—Wisconsin
Wis—Wisconsin
Wo—Worm
X—Sleeve Valve
Yell—Yellow
Zen—Zenith
a—Other ratios optional

MERCIAL CARS

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight—Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Lansden Marathon	.....	4400	.....	4000	2250	13	A	50	G-E	Own	4	C	D	SP	36x4	36x3½†	Bay	120	60
Lansden Marathon	.....	5700	.....	7000	2950	11	A	45	G-E	Own	4	C	D	SP	36x5	36x5†	Bay	133	60
Lansden Marathon	.....	7500	.....	10000	3350	10	A	40	G-E	Own	4	C	D	SP	36x6	36x6†	Bay	146	60
O. B–B	.....	.....	.....	.....	.....	13	.....	.....	G-E	Own	...	C	D	.....	36x4	36x3½†	Own	107	.....
O. B–C	.....	.....	.....	.....	.....	11	.....	.....	G-E	Own	...	C	D	.....	36x5	36x4 †	Own	135	.....
O. B–D	.....	.....	.....	.....	.....	10	.....	.....	G-E	Own	...	C	D	.....	36x6	36x5 †	Own	143	.....
Steinmetz 10	.....	2000	.....	.....	.....	16	H&S	52	Diehl	Own	4	R	Russ	Shel	32x4½	32x4½	Lav	106	60
Steinmetz 15	.....	2300	.....	.....	.....	16	H&S	55	Diehl	Own	4	R	Russ	Shel	33x5	33x5	Lav	114	60
Walker 12	.....	1900	.....	1000	.....	15	H&S	50	G-E	Own	4	.....	Tim	Det	32x3	32x3½	Ross	104	66
Walker 15	.....	2800	.....	1500	.....	14	A	50	West	West	5	Own	Own	Math	34x3	36x3½	Ross	94	66
Walker 22	.....	3000	.....	2000	.....	13	A	50	West	West	5	Own	Own	Math	34x3½	36x4	Ross	101	66
Walker 42	.....	4200	.....	4000	.....	13	A	50	West	West	5	Own	Own	Math	36x4	36x6	Ross	114	66
Walker P	.....	6000	.....	7000	.....	11	A	40	West	West	5	Own	Own	Math	36x5	38x5†	Ross	131	66
Walker N	.....	6700	.....	10000	.....	10	A	40	West	West	5	Own	Own	Math	36x6	38x6†	Ross	141	66
Walter HD	6800	2300	.....	2000	2200	16	A	60	Diehl	G-E	5	B	.....	.....	32x3½	32x4	Ross	98	60
Walter EN	13200	4400	.....	5000	3100	15	A	50	G-E	G-E	5	Own	D	.....	36x4	36x7	Gem	114	60
Walter EL	16800	5000	.....	7000	3700	13½	A	50	G-E	G-E	5	Own	D	.....	36x5	36x4	Gem	132	60
Walter ES	23600	7200	.....	11000	4500	12	A	50	G-E	G-E	5	Own	D	.....	36x6	40x6	Ross	150	70
Walter ER	28400	7500	.....	15000	4800	11	A	50	G-E	G-E	5	Own	D	.....	36x7	40x7	Ross	150	70
Ward A211	4500	1650	550	1150	.....	15	S	75	G-E	Own	4	W	Shel	Shel	32x4*	33x4½*	Own	88	56
Ward B-222	6000	2300	1010	1700	.....	14	S	84	G-E	Own	4	W	Shel	Shel	32x3½	32x4	Own	91	62
Ward C-211	8000	2670	2170	2880	.....	13	S	65	G-E	Own	4	W	Shel	Shel	32x3½	34x5	Own	96	64
Ward E-211	12000	3570	4480	5430	.....	12½	S	56½	G-E	Own	4	W	Shel	Shel	34x4	36x6	Own	108	65
Ward G-211	16000	4500	6560	7760	.....	11	S	44	G-E	Own	5	W	Shel	Shel	36x5	36x8	Own	120	68
Ward J-211	22500	6630	8580	11200	.....	10	S	39½	G-E	Own	5	W	Shel	Shel	36x6	36x10	Own	136	70
Ward M-211	30000	8430	13780	15920	....	9	S	36	G-E	Own	5	W	Shel	Shel	36x7	36x7†	Own	152	71

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A–amidships; H–under hood; and S–under seat.

Replacement Table—Corrected Monthly

Including Piston Ring Sizes, Carburetor Sizes, Hose Sizes, Fan Belt Sizes, Brake Lining Sizes and Truck Frame Dimensions

*** Note: Under Carburetor Inlet Diameter Will be Found Either the Size of Main Air Intake or the Gasoline Fuel Line**

Fan Belt Type: V—V-Shape, F—Flat, R—Round

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter *	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Ace 40–1½	3	7/32	1	1	V	7	1¾	8	1¼	40 5/8	2	F	12	3¼	¼	4	12	3¼	¼	4	122½	76 3/8	215¼	32	9
Ace 60–3	3	¼	1¾	¼	V	10	2	15	1¾	42 3/8	2	F	13½	3½	¼	4	13½	3½	¼	4	Opt	84½	241	.....	9½
Acme 20L–1½	3	7/32	1¾	1¼	V	7	1¼	11	1¼	34	1¼	F	12	3	¼	4	12	3	¼	4	108 5/8	63 3/8	200	34	10½
Acme 40–2	4	7/32	1	1	V	8	1½	11	1½	40	1½	F	12	3¼	¼	2	12	3¼	¼	2	123 3/8	74 3/8	208	34	9¾
Acme 40L–2	4	¼	1¼	1¼	V	11½	1½	12½	1½	39½	1½	F	12	3¼	¼	2	12	3¼	¼	2	123 3/8	74 3/8	214½	34	9¾
Acme 60–3	4	¼	1¼	1¼	V	11½	1½	12½	1½	39½	1½	F	13	3½	¼	2	13	3½	¼	2	132 3/8	79 3/8	223½	34	10
Acme 60L–3	4	¼	1¼	1¼	V	11½	1½	12½	1½	41¾	1½	F	13	3½	¼	2	13	3½	¼	2	140 11/32	79 3/8	235½	34	10
Acme K (Bus)	3	7/32	1½	1 7/8	V	12¾	1 7/8	12¾	1 7/8	34½	1¼	F	15½	3¾	¼	2	15½	3¾	¼	2	220 1/8	127 5/8	312	41 3/8	6
Acme 90–4½	4	¼	1¼	1¼	V	10	1½	12	1½	41¾	1½	F	15½	3¾	¼	2	15½	3¾	¼	2	150¼	95¼	243	36	10¾
Acme 90L–4½	4	¼	1½	1½	V	10	1½	10	1½	40½	1¾	F	15½	3¾	¼	2	15½	3¾	¼	2	153¾	96¾	255	37	10¾
Acme 125–6¼	4	¼	1½	1½	V	10	1½	10	1½	40½	1¾	F	18	4	¼	2	18	4	¼	2	159¾	99¾	261	37	10
American-LaFrance 2R	3	¼	1 1/32	1 11/32	V	11½	1½	9	1½	40½	2	F	†	†	¼	4	17	3½	¼	4	132	81 1/32	244¼	33	10
American-LaFrance 2R	3	¼	1 1/32	1 11/32	V	11½	1½	9	1½	40½	2	F	†	†	¼	4	17	3½	¼	4	156	98 1/32	268¼	33	10
American-LaFrance 2R	3	¼	1 1/32	1 11/32	V	11½	1½	9	1½	40½	2	F	†	†	¼	4	17	3½	¼	4	180	110 1/32	292 7/8	33	10
American-LaFrance 3R	3	¼	1 1/32	1 11/32	V	11½	1½	9	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	144¼	89 7/8	244¼	35 11/32	9
American-LaFrance 3R	3	¼	1 1/32	1 11/32	V	11½	1½	9	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	168¼	103 7/8	268¼	35 11/32	9
American-LaFrance 3R	3	¼	1 1/32	1 11/32	V	11½	1½	9	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	210¼	125 7/8	309 7/8	35 11/32	9
American-LaFrance 5R	3	¼	1 11/32	1 11/32	V	11½	1½	9	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	144¼	90¼	244¼	36	10
American-LaFrance 3R	3	¼	1 1/32	1 11/32	V	11½	1½	9	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	192¼	113 7/8	291 7/8	35 11/32	9
American-LaFrance 5R	3	¼	1 11/32	1 11/32	V	11½	1½	9	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	210¼	125	310¼	36	10
Armleder 30–1½	3	¼	1¼	7/32	V	10	1¾	16½	1¼	33 11/32	1½	F	11 11/32	3¼	¼	4	11 11/32	3¼	¼	4	Opt	71 5/8	215 5/8	32	9¼
Armleder 50–2½	4	¼	1¼	7/32	V	12	2	17¾	1¼	35¾	2	F	13	3½	¼	4	13	3½	¼	4	Opt	77 7/8	228 5/8	32	10
Atterbury 24-R	4	7/32	1¼	3/8	V	10½	1½	16	1½	34¼	5/8	V	11 1/32	3¼	¼	4	11 1/32	3¼	¼	4	119¼	76	211¾	34	9½
Atterbury 22C–2½	4	¼	1¼	3/8	V	10½	1½	16	1½	40½	1½	V	13 1/32	3½	¼	4	13 1/32	3½	¼	4	129¼	78¾	225	34	9¼
Atterbury 22D–3½	4	¼	1¼	3/8	V	10½	1½	16	1½	40½	1½	F	15½	3¾	¼	4	15½	3¾	¼	4	142¾	93¼	242	37½	10 1/32
Atterbury 24E	4	¼	1½	3/8	V	10½	1½	16	1½	42 3/8	1¾	F	17¾	4	¼	4	17¾	4	¼	4	159¾	89¼	263	37½	10 1/32
Autocar XXI–F–1½	4	7/32	1 1/32	1 5/8	V	5	1 1/8	9½	1 1/8	.....	.....	...	16¼	2½	1/32	4	13½	2½	1/32	4	91	67	156	34	9½
Autocar XXI–G–1½	4	7/32	1 1/32	1 5/8	V	5	1 1/8	9½	1 1/8	.....	.....	...	16¼	2½	1/32	4	13½	2½	1/32	4	114	90	179	34	9½
Autocar XXVI–M4–6	3	¼	1 1/32	1 5/8	V	3½	1½	3½	1½	49½	2	F	23½	2¾	¼	4	23½	2¾	¼	4	139¾	80¾	223¼	34 1/8	10
Autocar XXVI–L4–6	3	¼	1 1/32	1 5/8	V	3½	1½	3½	1½	49½	2	F	23½	2¾	¼	4	23½	2¾	¼	4	175¾	116¾	259¼	34 1/8	10
Autocar XXVII–H3	3	¼	1 1/32	1 5/8	V	3½	1½	3½	1½	47½	2	F	20½	2	¼	4	20½	2	¼	4	131½	76	213¼	34 1/8	10 1/8
Autocar XXVII –K3	3	¼	1 1/32	1 5/8	V	3½	1½	3½	1½	47½	2	F	20½	2	¼	4	20½	2	¼	4	155½	100	237¼	34 1/8	10 1/8
Available J–H–1½	4	7/32	2¼	1 1/32	...	11	1 5/8	14	1 5/8	40	2	...	48	2½	¼	2	36	2½	¼	2	120	80½	201¼	32	9
Available J–H2	4	7/32	2¼	1 1/32	V	12	1 5/8	14	1 5/8	40	2	F	48	2½	¼	2	36	2½	¼	2	120	84½	212	32	9
Available J–H–2½	3	7/32	2¼	1 1/32	...	11	1 5/8	14	1 5/8	40	2	...	13½	3½	¼	4	13½	3½	¼	4	144	85 5/8	226 7/8	32	9
Available J–H3½	4	7/32	2½	1 1/32	V	12	1 5/8	14	1 5/8	42	2	F	16	3¾	¼	4	16	3¾	¼	4	168	106 3/8	254 7/8	36	9
Available J–H5	3	¼	2½	1 11/32	...	12	2	16	2	40	2	...	18	4	¼	4	18	4	¼	4	168	112 5/8	263 1/8	38	9
Bessemer G–1	3	7/32	1	1/16	V	11½	2¼	10	2¼	42	5/8	V	46	2½	1/32	2	44	2¼	1/32	2	98¼	58½	182¾	34	.....
Bessemer H–2–1½	3	1/16	1	1/16	V	11½	2¼	10	2¼	43	5/8	V	16 3/8	2	¼	8	16 3/8	2	¼	8	116	76	203	34	.....
Bessemer J2–2½	3	1/16	1¼	1/16	V	12	1½	5	1 7/8	36¼	1¼	F	18 3/8	2¼	¼	8	18 3/8	2¼	¼	8	142 3/8	92¼	229	34	.....
Bessemer K2–4	3	1/16	1¼	1/16	V	11½	2¼	10	2¼	39 3/8	1½	F	55	3½	¼	2	33	4½	¼	1	157½	108	249	38	.....
Bethlehem KN–1	3	1/16	....	1	V	8¾	2 1/8	8	2 1/8	35½	1¼	F	20½	1¾	1/16	2	20½	1¾	1/16	2	89¼	56¼	175	32 1/32	10½
Bethlehem GN–2	3	1/16	....	1¼	V	8½	2 5/8	9½	2 5/8	40 7/8	1½	F	51	2½	1/16	1	37	2½	1/16	1	116¾	74	208¼	34½	9¼
Bethlehem L	3	1/16	....	1¼	V	8½	2 5/8	9½	2 5/8	40 7/8	1½	F	51	2½	1/16	1	37	2½	1/16	1	134¾	81½	226¼	34½	8½
Betz J3–1	3	1/16	1	1¼	V	12	1½	17	1¼	33½	1½	F	11	3	1/32	4	11	3	1/32	4	126	90	215	34	10
Betz D3–2½	3	1/16	1¼	1/16	V	12	2 1/8	12	1½	33½	1¼	F	12	3½	¼	4	12	3½	¼	4	Opt	.....	.....	34	.....
Brinton C–1½	3	1/16	1 1/32	5/8	....	11	1¼	13	1¼	33	11/32	F	39	2½	1/16	1	38	2½	1/16	1	118	.....	.....	.....	33
Brinton D–2½	3	1/16	1 1/32	5/8	....	11	1¼	13	1¼	33	11/32	F	13	3½	¼	2	13	3½	¼	2	135½	.....	.....	.....	33
Brockway S–12–1½	3	1/16	1	1¼	V	10½	2¼	5½	2¼	39	1¼	F	10	3½	¼	4	10	3½	¼	4	118	72	118½	32	.....
Brockway K–11–2½	4	1/16	1¼	1½	V	6½	1¾	13	1¼	34	1¼	F	13	3½	¼	4	13	3½	¼	4	142	89½	123½	34	.....
Brockway R–12–3½	4	1/16	1¼	1½	V	9½	1¾	14	1¼	34	1½	F	15 1/8	3¾	¼	4	15 1/8	3¾	¼	4	176	102¾	175	36	.....
Brockway T–6–5	4	¼	1½	1¾	V	13	2	22	2	40 3/8	2	F	17¾	4	¼	4	17¾	4	¼	4	176	104½	176	36	.....
Buffalo 9, 6	4	7/32	1¼	7/32	V	7	1 5/8	13	1 5/8	41½	2	F	21	2¼	¼	4	21	2¼	¼	4	124	82½	224	34	9¾
Casco A–1	4	7/32	1 1/16	7/32	V	12	1¾	14½	1¼	34¾	1½	F	48½	2½	1/32	1	48	2¼	1/32	1	104	61	192¼	34	10
Chevrolet Sup. Com. Chassis	3	7/32	1	7/32	V	7½	1¼	5 3/8	1¼	29 11/32	11/32	V	29 5/8	1½	1/32	2	28 7/8	1¼	1/32	2	Opt	Opt	106 1/8	38 3/32	9¾
Chevrolet Utility Exp	3	7/32	1	7/32	V	7½	1¼	5 3/8	1¼	29 11/32	11/32	V	37	2	1/32	2	32 5/8	1¾	1/16	2	Opt	Opt	156 11/32	37	10
Chicago 20–1½	4	¼	1	1¾	V	12	1½	15	1½	34½	1½	F	21	2½	¼	4	10	2	¼	4	145½	75 1/32	211½	32	.....
Chicago 25–2½	4	¼	1¼	1¾	V	12	1½	15	1½	34½	1½	F	21	2½	¼	4	10	2	¼	4	157½	87 1/32	223½	32	.....
Chicago 35–3½	4	¼	1¼	1¾	V	12	1½	15	1½	34½	2	F	25	3¼	¼	4	12	2¼	¼	4	174	84½	249	36¾	.....
Chicago 50–5	4	¼	1¾	1¾	V	12	1½	15	1½	45	2	F	25	3¼	¼	4	12	2¼	¼	4	173	84½	249	36¾	.....
Clinton 20–1¼	4	7/32	1	7/32	H	8	1¾	14	1¼	33	1½	F	11¾	3¼	¼	4	11¾	3¼	¼	4	112	73¾	207	34	10
Clinton 45–2	4	7/32	1	7/32	H	11	1¾	17½	1¼	36 3/8	2	F	11¾	3¼	¼	4	11¾	3¼	¼	4	131	81	233	33¼	9
Clinton 65–3	4	7/32	1¼	7/32	H	11	2	19	1¼	38 3/8	2	F	13 1/32	3½	¼	4	13 1/32	3½	¼	4	166	102	270½	33¼	9½
Clinton 90–90M–4	4	7/32	1¼	7/32	H	13¼	2	19	1¼	38 3/8	2	F	15 5/8	3¾	¼	4	15 5/8	3¾	¼	4	163	105	270½	38	8½
Clinton 120L–120LM–5	4	¼	1½	7/32	H	12	2	18	1½	41	2	F	18	4	¼	4	18	4	¼	4	206½	115	318	38	8
Clinton 120S–120SM–5–7	4	¼	1½	7/32	H	12	2	18	1½	41	2	F	18	4	¼	4	18	4	¼	4	130½	91	242	38	10
Clydesdale 120B–5–5–6	3	¼	1 11/32	7/32	V	9	2	18½	2	46½	2	F	18	4	¼	4	18	4	¼	4	131	.....	.....	38	.....
Clydesdale 90–3½–4½	3	7/32	1 5/8	7/32	V	9	1½	14	1½	42	1½	F	16	3¾	¼	4	16	3¾	¼	4	143	.....	.....	38	.....
Clydesdale 65EX 2½–3	3	7/32	1 5/8	7/32	V	9	1½	14	1½	42	1½	F	13¼	3½	¼	4	13¼	3½	¼	4	132	.....	.....	33¼	.....
Clydesdale 65X–2½–3	3	7/32	1 1/32	7/32	V	11	1½	11	1½	11	1½	F	13¼	3½	¼	4	13¼	3½	¼	4	137	.....	.....	33¼	.....
Clydesdale 42–1½–2	3	7/32	1 1/32	7/32	V	15	2	12	2	41	3/4	V	12	3¼	¼	4	12	3¼	¼	4	117	.....	.....	34	.....
Clydesdale 20–1–1¼	3	7/32	1 1/32	7/32	V	15	2	12	2	41	3/4	V	11¼	3	¼	4	11¼	3	¼	4	95	.....	.....	34	.....
Clydesdale 18–¾–1¼	3	7/32	1 1/32	7/32	V	15	2	12	2	41	3/4	V	11¼	2½	¼	4	11¼	2½	¼	4	95	.....	.....	34	.....
Clydesdale 10–¾–1¼	3	7/32	1 1/32	7/32	V	9	2	9	2	41	3/4	V	11¼	2½	¼	4	11¼	2½	¼	4	109	.....	.....	34	.....
Clydesdale 10A–1–¾–1¼	3	7/32	1 1/32	7/32	V	9	2	9	2	41	3/4	V	11¼	2½	¼	4	11¼	2½	¼	4	109	.....	.....	34	.....
Columbia H–1½	3	7/32	1	....	V	10	1¼	12	1¼	39	1¼	F	23	1¾	¼	4	23	1¾	¼	4	Opt	Opt	Opt	32½	10

† 12 O. D. 7½ I. D.

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Columbia G–2½	3	1/8	1¼	....	V	10	1¼	12	1¼	39	1¼	F	26	2	1/4	4	26	2	1/4	4	Opt	Opt	Opt	32½	9
Columbia K–3	3	1/8	1¼	....	V	11	1½	13	1½	42	2	F	26	2	1/4	4	26	2	1/4	4	Opt	Opt	Opt	32½	9
Commerce 11–2000	3	1/8	1	1/8	V	10	2	10	2	44	3/4	V	50	2	1/4	2	48½	2	1/4	2	92 5/8	53 5/8	193	34	9
Commerce 14B–3000	4	1/8	1	1/8	V	10	2	9½	1½	39¾	1/4	F	11 1/16	3¼	1/4	4	11 1/16	3¼	1/4	4	117	75	210	34	8¾
Commerce 25B–5000	4	1/4	1¼	1/8	V	9½	1½	15½	1½	42	1½	F	13	3½	1/4	4	13	3½	1/4	4	132	84	228½	34	12½
Concord E–1	4	1/4	1	1/8	H	7	1½	9½	1⅜	33½	2	F	12	3	1/4	4	12	3	1/4	4	.....	.....	.....	32¼	.....
Concord G–2	4	1/4	1	1/8	H	7	1⅞	9½	1⅜	33½	2	F	13½	3½	1/4	4	13½	3½	1/4	4	.....	.....	.....	32¼	.....
Concord H–2	4	1/4	1¼	1/8	H	7	1⅞	9½	1⅜	33½	2	F	12	3¼	1/4	4	12	3¼	1/4	4	.....	.....	.....	32¼	.....
Concord J–2½	4	1/4	1¼	1/8	H	7	1⅞	9½	1⅜	33½	2	F	13½	3½	1/4	4	13½	3½	1/4	4	.....	.....	.....	32¼	.....
Concord JL–3	4	1/4	1¼	1/8	H	7	1⅞	9½	1⅜	33½	2	F	13½	3½	1/4	4	13½	3½	1/4	4	.....	.....	.....	32¼	.....
Corbitt S–¾	3	1/8	1	1/8	H	8	2	14	2	38	1¼	F	16¾	1¾	1/8	4	16¾	1¾	1/8	4	103	59	196	34	11⅛
Corbitt E–1	3	1/8	1	1/8	H	9	2	12	2	41	5/8	V	16¾	1¾	1/4	4	16¾	1¾	1/4	4	104	62	198	34	11⅛
Corbitt D–1½	3	1/8	1	1/8	V	11	1¼	15	1¼	46	1½	F	18	2	1/4	4	18	2	1/4	4	110	72	206	34	10
Corbitt C–2	3	1/8	1¼	1/8	V	13	1¼	15	1¼	46	1½	F	22¼	2¼	1/4	4	22¼	2¼	1/4	4	132	78	230	35	10 5/8
Corbitt B–2½	3	1/8	1¼	1/8	V	13	1¼	15	1¼	46	1½	F	22¼	2¼	1/4	4	22¼	2¼	1/4	4	136	78	232	35	10 5/8
Corbitt R–2½–3	3	1/8	1¼	1/8	V	14	1¼	8	1¼	46	1½	F	22¼	2¼	1/4	4	22¼	2¼	1/4	4	153	92	254	35	10 5/8
Corbitt A–3½–4	3	1/8	1¼	1/8	V	14	1¼	8	1¼	46	1½	F	21	4	1/4	2	21	3	1/4	2	168	106	266	35	9
Corbitt AA–5	3	1/8	1½	1/8	V	13	2	14	2	36	2	F	68¾	3	1/4	2	68¾	3	1/4	2	168	106	268	38	10
Day-Elder AN–1½	3	1/8	1	1¼	V	6¾	1¾	7	1¼	34 5/8	1⅜	F	10 1/16	3	1/4	4	10 1/16	3	1/4	4	106¾	62¾	191	35	.....
Day-Elder BN–2	3	1/8	1	1¼	V	4	1½	12½	1½	41	1¼	F	11¾	3¼	1/4	4	11¾	3¼	1/4	4	120	78¾	204¼	34	.....
Day-Elder DN–2½	3	1/8	1¼	1½	V	4	1½	12½	1½	43	1⅜	F	13 1/16	3½	1/4	4	13 1/16	3½	1/4	4	132	72¾	222½	34	.....
Day-Elder CN–3	3	1/4	1¼	1½	V	10½	2	12	1¼	37	2	F	13 1/16	3½	1/4	4	13 1/16	3½	1/4	4	123¼	77¼	216	35	.....
Day-Elder FN–4	3	1/8	1½	1¾	V	7½	1½	12½	1½	43	1⅜	F	15 5/8	3¾	1/4	4	15 5/8	3¾	1/4	4	120¼	81¾	214½	35	.....
Day-Elder EN–5–6	4	1/4	1½	1¾	V	12½	2	....	1¼	38	2	F	17 11/16	4	1/4	4	17 11/16	4	1/4	4	154	94	253	37	.....
Defiance G2–1¼	3	1/8	1	1½	V	10	2	8	2	40	1¼	F	20	1¾	1/8	4	20	1¾	1/8	4	90	56	179½	34	.....
Defiance GL2–1¼	3	1/8	1	1½	V	10	2	8	2	40	1¼	F	20	1¾	1/8	4	20	1¾	1/8	4	119½	76½	203	34	.....
Defiance D–2–1½	3	1/8	1	1½	V	10	2	8	2	40	1¼	F	45	2½	1/8	1	43 1/16	2¼	1/8	1	119½	76½	203	34	.....
Defiance E2–2	3	1/8	1	1½	V	10	2	8	2	40	1¼	F	52	2½	1/8	1	37	2½	1/8	1	119½	76½	203	34	.....
Defiance EL–2–2	3	1/8	1	1½	V	10	2	8	2	40	1¼	F	52	2½	1/8	1	37	2½	1/8	1	136½	93½	220	34	.....
Defiance H2–3	3	1/8	1¼	1½	V	11¾	1½	9	1½	42½	1½	F	61	2½	1/8	1	47	2½	1/8	1	125¾	82¾	220	34	.....
Defiance HL–2–3	3	1/8	1¼	1½	V	11¾	1½	9	1½	42½	1½	F	61	2½	1/8	1	47	2½	1/8	1	143¾	100¾	238	34	.....
Defiance H–3	3	1/8	1¼	1½	V	11¾	1½	9	1½	42½	1½	F	61	2½	1/8	1	47	2½	1/8	1	101¾	66¾	190	34	.....
Diamond T–75–¼–1	3	1/4	3/4	1	V	8	1½	10½	1¼	33¼	1¼	F	22	2½	1/4	2	46 5/8	2¼	1/8	1	90	57½	182½	34	.....
Diamond T–O–1–1¼	3	1/8	1	1¼	V	9	1¼	6	1¼	35	2	F	48	2½	1/8	2	33	2½	1/8	2	100	.....	.....	34	.....
Diamond T–T–1½	3	1/8	1	1¼	V	9	1¼	6	1¼	35	2	F	11½	3¼	1/4	4	11½	3½	1/4	4	Opt	.....	.....	34	.....
Diamond T–U2–2½	3	1/8	1¼	1¼	V	9	1¼	8	1¼	35	2	F	13¼	3½	1/4	4	13¼	3½	1/4	4	Opt	.....	.....	34	.....
Diamond TK–3½	3	1/4	1¼	1½	V	10	1½	10	1½	35	2	F	15 5/8	3¾	1/4	4	15 5/8	3¾	1/4	4	Opt	.....	.....	37	.....
Diamond T–S–5	3	1/4	1½	1¾	V	9	2	21	2	40 3/8	2	F	18	4	1/4	4	17 11/16	4	1/4	4	Opt	.....	.....	37	.....
Diehl A	4	....	1	1	....	.....	.....	.....	.....	.....	.....	...	28	2½	1/8	2	27	2	1/8	2	90	48	174	.....	11
Dixon Model D	4	1/8	1	....	V	11	1½	8	1½	41	....	F	13	3½	1/4	4	13	3½	1/4	4	126	71	221½	34½	9½
Dixon Model C	4	1/8	1¼	....	V	12	1½	10	1½	42	....	F	13	3½	1/4	4	13	3½	1/4	4	Opt	71	221½	34½	9½
Dixon Model A	4	1/8	1¼	....	V	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	...	13	.....	1/4	2	Opt	71	221½	36	9½
Dodge Brothers–¾	4	1/8	1⅛	1/4	V	9	1½	7¼	1 1/16	34½	1	F	24 3/4	2¼	1/8	2	15 5/8	1¾	1/8	2	.....	.....	.....	.....	9 3/8
Dorris K–4–2½	3	1/4	1¼	1¼	V	2¼	1½	6¼	1¼	42⅞	2	F	13½	3½	1/4	4	13½	3½	1/4	4	142¾	96½	233½	34	9
Dorris K7–3½	3	1/4	1¼	1¼	V	2¼	1½	6¼	1¼	42⅞	2	F	15¾	3¾	1/4	4	15¾	3¾	1/4	4	178½	130½	270½	36	9
Double Drive TT–3	4	1/4	1¼	1/8	V	12	2	19	1½	34	2	F	8 5/8	4	1/4	4	18	4	1/4	4	132	100	216	34	9¾
Duplex G	4	1/8	1	....	V	.....	1¾	....	1¼	.....	.....	F	11	2½	1/4	4	11	2½	1/4	4	102	.....	.....	34	.....
Duplex GH	4	1/8	1	....	V	.....	1¾	....	1¼	.....	.....	F	19	2	1/4	4	19	2	1/4	4	112	.....	.....	34	.....
Duplex A	3	1/8	1¼	....	V	.....	1¼	....	1¼	.....	.....	F	20	2¼	1/4	4	20	2¼	1/4	4	121	.....	.....	34	.....
Duplex AC	3	1/8	1¼	....	V	.....	1¼	....	1¼	.....	.....	F	26	2	1/4	4	26	2	1/4	4	140	.....	.....	34	.....
Duplex E	3	1/4	1¼	1½	V	.....	2	....	1¼	.....	.....	F	10	2½	1/4	4	52	2½	1/4	4	128	.....	.....	40	.....
Duplex FD	4	1/4	1¼	....	V	.....	2	....	1¼	.....	.....	F	26¼	2	1/4	4	26¼	2	1/4	4	Opt	.....	.....	34	.....
Eagle 100–2	4	1/8	1¼	1	V	14	2	16	1¼	36	1½	...	49½	3	1/8	2	46	2	1/8	2	Opt	.....	.....	36	.....
Eagle 101–1¼	4	1/8	1¼	1	V	14	2	16	1¼	34	1½	..	21	2½	1/16	2	21	2¼	1/8	2	Opt	.....	.....	31	.....
Eagle 104	4	1/4	1¼	1¼	V	14	2	16	1¼	36	1½	F	49½	3	1/8	2	46	2	1/8	2	Opt	.....	.....	32	.....
Fageol 1½–2	3	1/4	1 1/8	1½	V	10	2½	20	2½	37¾	1½	F	19¼	1¾	1/8	2	19¼	1¾	1/8	2	120	.....	.....	30	.....
Fageol 2½–3	3	1/4	1 1/8	1 11/16	V	10	1¼	14¾	1¼	34¾	1½	F	13¼	3½	1/4	2	13¼	3¼	1/4	2	141	.....	.....	34	.....
Fageol 3½–4	3	1/4	1⅝	2	V	9	1½	17½	1½	40½	1½	F	15½	3¾	1/4	2	15½	3¾	1/4	2	159½	.....	.....	37¾	.....
Fageol 5–6	3	1/4	1⅝	2	V	9	1½	17½	1½	40½	1½	F	18	4	1/8	2	18	4	1/8	2	161¼	.....	.....	37¾	.....
Federal R–2–1	4	1/8	1	....	V	.....	1½	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	110	.....	.....	.....	.....
Federal S–21–1½	4	1/8	1	....	V	.....	1½	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	118	.....	.....	.....	.....
Federal S–22–1½	4	1/8	1	....	V	.....	1½	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	118	.....	.....	.....	.....
Federal U–2–2½	4	1/4	1¼	....	V	.....	1¼	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	134	.....	.....	.....	.....
Federal WL–4	4	1/4	1¼	....	V	.....	1½	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	154	.....	.....	.....	.....
Federal X2–5	4	1/4	1½	....	V	.....	1¾	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	15.	.....	.....	.....	.....
Federal Light Duty	4	1/4	1¼	....	V	.....	1¼	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	86	.....	.....	.....	.....
Federal Heavy Duty	4	1/4	1¼	....	V	.....	1¼	....	1½	.....	....	F	.....	.....	.....	4	.....	.....	.....	4	99	.....	.....	.....	.....
Ford T–1	3	1/4	1.06	1 1/8	H	4	2	2¾	1¾	26 1/16	1⅜	R	23⅜	1⅛	1/8	1	12	1⅝	1/8	2	60	....	123	23	9¾
Front Drive FT–1½	4	1/4	1	1/8	V	13¾	1¾	17	1⅜	33	2	F	13	4	1/4	1	15	4	1/4	1	132	98	204	34	10½
Fulton C–2	4	1/8	1⅛	1½	H	13	2	15	2	37½	1½	F	50½	3	1/8	1	25	2¾	1/8	1	120	73	215½	34	10
Fulton A–1	4	1/8	1⅛	1½	H	13	2	15	2	37½	1½	F	48	2½	1/8	1	47½	2¼	1/8	1	106	60	192	33¾	12
Fulton C–2	4	1/8	1 1/16	1½	V	9¾	2	10	1¼	35½	1½	F	50½	3	1/8	1	25	2¾	1/8	1	120	73	215½	34	10
F. W. D. B–3	3	1/4	1 11/16	1½	V	4	2	5	1½	40	1⅞	F	27	3½	1/4	1	43	2¾	1/4	2	148	97	200	36	9¾
Garford 15–1	4	1/8	1	....	V	.....	.....	.....	.....	34	1½	F	11	2½	1/4	4	11	2½	1/4	4	96	61	187	34	11
Garford 30–1½	4	1/8	1¼	....	V	.....	.....	.....	.....	31½	5/8	R	11¾	3¼	1/4	4	11¾	3¼	1/4	4	120	71	220	34	9
Garford 50–2½	4	1/8	1¼	....	V	.....	.....	.....	.....	38⅝	5/8	R	13 1/16	3½	1/4	4	13 1/16	3½	1/4	4	144	82	246	34	7
Garford 80–4	4	1/4	1¼	....	V	.....	.....	.....	.....	39	2	R	15⅝	3¾	1/4	4	15⅝	3¾	1/4	4	150	88½	251	36	7
Garford 68D–5	4	1/4	1½	....	V	.....	.....	.....	.....	39¼	5/8	R	17¾	4	1/4	4	17¾	4	1/4	4	150	88½	251	36	10
Garford 151–A–5	4	1/4	1½	....	V	.....	.....	.....	.....	39¼	5/8	R	10½	4	3/8	2	21⅝	4	3/8	2	150	88½	251	36	11
Gary W–1–1½	4	1/8	1	3/8	V	.....	2	.....	.....	.....	1	R	11½	3	1/4	4	11½	3	1/4	4	97 3/8	.....	.....	34	11½
Gary I–2	4	1/4	1¼	3/8	V	13½	2	12	1¼	32	1¼	F	12	3¼	1/4	4	12	3¼	1/4	4	120	72	214	34	10¾
Gary J–2½	4	1/4	1¼	3/8	V	10	2	12	1¼	36	2	F	13½	3½	1/4	4	13½	3½	1/4	4	120	76	214	34	10
Gary K–3½	4	1/4	1¼	3/8	V	13	2	16½	1¼	36	2	F	15¾	3¾	1/4	4	15¾	3¾	1/4	4	148	86	247	36¾	10¾
Gary M–5	4	1/4	1¼	3/8	V	14	2	18	1⅜	.....	2	F	18¼	4	1/4	4	18¼	4	1/4	4	168	99	275	39	10¼
G.M.C. K–16	4	1/8	1¼	1 5/8	V	8¾	1½	8 1/16	1½	33½	11	V	49⅜	2½	1/8	2	47	2⅜	1/8	2	89	57	183½	34	8¾
G.M.C. K–41	4	1/4	1¼	1 5/8	V	10	1¾	9½	1¾	35¾	11	V	13	3½	1/4	4	13	3½	1/4	4	Opt	Opt	Opt	38	10¼
G.M.C. K–71	4	1/4	1¼	1 5/8	V	11¾	1¾	9½	1¾	35¾	11	V	15⅛	3¾	1/4	4	15⅛	3¾	1/4	4	Opt	Opt	Opt	38	9¾
G.M.C. K–101	4	1/4	1¼	1 5/8	V	11¾	1¾	9½	1¾	35¾	11	V	17¾	4	1/4	4	17¾	4	1/4	4	Opt	Opt	Opt	38	9¾
Gotfredson 20–B–1	4	1/8	1	1	V	10¼	1¾	10½	1¼	32 1/16	1½	F	42¼	3¼	1/8	1	11	2	1/8	2	88	56 11/16	181¼	32 1/16	8½
Gotfredson 30–1½	4	1/8	1	1	V	10¼	1¾	10½	1¼	32 1/16	1½	F	11¾	3¼	1/8	4	.....	.....	.....	...	120	69 11/16	213¼	32 1/16	.....
Gotfredson 41–2	4	1/4	1¼	1¼	V	8½	1¾	4	1¼	32 1/16	1½	F	11¾	3¼	1/8	4	.....	.....	.....	...	119 1/16	67 1/16	216 5/8	32	.....
Gotfredson 60–3	4	1/4	1¼	1¼	V	11	2	16¼	1¼	41	1¾	F	11¾	5	1/8	2	13½	3¼	1¼	4	127	81 1/16	218½	33	.....
Gotfredson 80–4	4	1/4	1¼	1¼	V	14	2	18	1¼	43	2	F	11¾	7	1/8	2	15½	3¾	1/4	2	147	88¾	242 5/8	35	8 11/16
Gotfredson 100–5	4	1/4	1½	1 1/16	V	14	2	19	1½	43	2	F	12¾	7	1/16	2	18¼	4	1/4	4	156	89¾	256½	38	10 1/16

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING							FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency			Length			Width	
	No. per Cyl.	Width	Outlet Diameter	★ Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Graham Bros. BA	4	1/8	1 1/8	1/4	V	9	1 1/2	7 1/4	1 1/4	34 1/2	1	F	50	2 1/2	1/8	2	20	2 1/2	1/8	4	96 3/4	56 3/4	202 5/8	34	10 1/4
Graham Bros. EA	4	1/8	1 1/8	1/4	V	9	1 1/2	7 1/4	1 1/4	34 1/2	1	F	50	2 1/2	1/8	2	20	2 1/2	1/8	4	62 3/4	34 3/4	168 5/8	34	10 1/4
Gramm-Bernstein 10 Sp'd–1	3	1/16	1	1 1/2	V	12	2 1/4	14 1/2	2 1/4	29	1	F	48	2	1/8	2	26	2	1/8	1	97	54	180	30 1/8	....
Gramm-Bernstein 15–1 1/2–2	3	1/16	1	1 1/2	V	10 1/4	2	6	2	39	1 1/4	F	48 1/2	2	1/8	2	45 7/8	1 1/2	1/8	2	120	74	205 11/32	32	....
Gramm-Bernstein 65–1 1/2–2	3	1/16	1	1 1/2	V	10 1/4	2	6	2	39	1 1/4	F	19 3/4	1 3/4	1/8	4	19 3/4	1 3/4	1/8	4	120	74	205 11/32	32	....
Gramm-Bernstein 125–2 1/2	3	1/16	1 1/4	1 1/2	V	4 1/2	1 1/2	12	1 1/2	32	2	F	8	5	1/4	2	45	2	1/16	4	126	77 3/4	214	32	....
Gramm-Bernstein 30–3	3	1/4	1 1/4	1 1/2	V	11	1 1/2	9	1 1/2	33 3/4	2	F	22 3/4	2 1/4	1/4	4	22 3/4	2 1/4	1/4	4	129 3/4	81 3/4	226 3/4	36	....
Gramm-Bernstein 75P–3 1/2	3	1/4	1 1/4	1 1/2	V	11	1 1/2	9	1 1/2	33 3/4	2	F	22 3/4	2 1/4	1/4	4	22 3/4	2 1/4	1/4	4	129 3/4	.....	.....	36	....
Gramm-Bernstein 40–4	3	1/4	1 1/4	1 1/2	V	11	1 1/2	9	1 1/2	33 3/4	2	F	28 3/4	2 3/4	1/4	4	28 3/4	2 3/4	1/4	4	144	87 3/4	240 3/4	36	....
Gramm-Bernstein 50–5–6	3	1/4	1 1/2	1 3/4	V	23 1/4	2	13 3/4	1 7/8	40 3/4	2	F	32 11/16	2 3/4	1/4	4	32 11/16	2 3/4	1/4	4	132	97	263 1/2	36	....
Grass Premier 40A	3	1/16	1	1 1/2	V	12	2 1/4	14 1/2	2 1/4	29	1	F	22 1/2	1 1/4	1/8	4	48	2 1/2	1/8	2	98	70	192	31	....
Grass Premier 60A1 1/2	4	11/64	1 1/4	1 1/2	V	14	2 1/2	16	2 1/2	.....	...	...	48 1/2	2	1/8	2	47	1 1/2	1/8	2	108	66	204	31	....
Grass Premier 70A2 1/2	4	11/64	1 1/4	1 1/2	V	14	2 1/2	16	2 1/2	.....	...	...	.....	.....	.....	...	.....	.....	...	...	120	.....	214	31	....
Grass Premier 90A3 1/2	3	1/4	1 1/2	1 3/4	V	11	1 1/2	11	1 1/2	40	1 1/2	F	15 5/8	3 3/4	1/4	4	15 3/4	3 3/4	1/4	4	95	83	192	35	....
G. W. W. Super	3	5/16	1 1/4	1 3/4	V	8	1 3/4	17 1/2	1 1/4	37 1/2	1 1/4	F	49	2 1/2	1/4	2	47	1 1/2	7/32	2	89	72	192	32	11 1/2
Harvey WOA–2	4	1/4	1 1/4	2	V	11	2	14	1 1/4	35 5/8	2	F	45	2	1/4	2	45	2	1/4	2	139	87	242 1/4	32	10
Harvey WFB–2 1/2	4	1/4	1 1/4	2	V	11	2	14	1 1/4	35 5/8	2	F	50	2 1/4	1/4	2	50	2 1/4	1/4	2	139	87	242 1/4	32	10
Harvey WHB–3 1/2	4	1/4	1 1/2	2	V	12	2	14	1 1/4	36 1/2	2	F	20 3/4	4	1/4	4	20 3/4	3	1/4	4	151 3/4	85 3/4	258 7/8	35	9
Harvey WFT–6	4	1/4	1 1/4	2	V	11	2	14	1 1/4	36 1/2	2	F	50	2 1/4	1/4	2	50	2 1/4	1/4	2	84	52	189 1/16	32	10
Harvey WHT–10	4	1/4	1 1/2	2	V	12	2	14	1 1/4	36 1/2	2	F	20 3/4	4	1/4	4	20 3/4	3	1/4	4	86	52 1/2	191 1/8	35	9
Hawkeye O	4	1/16	.....	1	V	12	2	9	1 1/4	.....	1 1/2	F	.....	.....	.....	...	.....	.....	...	...	.....	.....	.....	.....	.....
Hawkeye K	4	1/16	.....	1	V	12	2	9	1 1/4	.....	2	F	.....	.....	.....	...	.....	.....	...	...	.....	.....	.....	.....	.....
Hawkeye M	4	1/4	.....	1 1/4	V	12	2 1/4	9	1 1/2	.....	2	F	.....	.....	.....	...	.....	.....	...	...	.....	.....	.....	.....	.....
Hawkeye N	4	1/4	.....	1 1/4	V	14	2 1/2	12	1 1/2	.....	2 1/2	F	.....	.....	.....	...	.....	.....	...	...	.....	.....	.....	.....	.....
Indiana 15–1 1/2	3	1/4	1 1/4	.....	.....	17	1 1/4	14	1 1/4	38 1/2	1	F	19	2	1/16	4	19	2	1/16	4	114	67 1/16	213 1/4	34	10 1/4
Indiana 20–2	3	1/4	1 1/4	.....	.....	6	1 1/4	13	1 1/4	26 3/8	1 1/2	F	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	126	74 1/2	226 1/2	33	10 1/4
Indiana 25–2 1/2	3	1/4	1 1/4	.....	.....	6	1 1/4	13	1 1/4	26 3/8	1 1/2	F	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	138	81	229 1/16	34	9 3/4
Indiana 35–3 1/2	3	1/4	1 1/4	.....	.....	6	1 1/4	13	1 1/4	26 3/8	1 1/2	F	20 3/4	...	1/4	4	20 3/4	...	1/4	4	139	79 3/4	244 3/4	34 1/2	8 3/4
Indiana 51–5	3	1/4	1 1/2	.....	.....	10	1 1/2	17 1/2	1 1/2	40 1/2	1 3/4	F	65 1/16	3	3/8	2	65 1/16	3	3/8	2	152 1/4	87	260	37 1/2	10 1/2
Inter'l S–2000 lbs.–Sp. Tr	3	1/4	1 1/4	1 1/4	V	9 3/4	2 1/4	17 3/4	2 1/4	30 1/4	1	F	38	2	1/8	2	36	2	1/8	2	88	.....	.....	34	.....
International 33–3000 lbs	4	1/4	1 1/4	1 3/4	V	6 1/4	2 1/2	6 1/2	2 1/2	43 1/2	1 1/2	F	43 3/4	2 1/4	1/8	2	43 3/4	2 1/4	1/8	2	101 3/4	57 1/4	194 3/4	34	11 1/2
International 43–4000 lbs	4	1/4	1 1/4	1 3/4	V	6 1/4	2 1/2	6 1/2	2 1/2	43 1/2	1 1/2	F	50 5/8	2 1/4	1/8	2	50 5/8	2 1/4	1/8	2	109	59 1/4	202	32 1/4	11 1/2
International 63–6000	4	1/4	1 1/4	1 3/4	V	9	2 1/2	14 1/2	2	46	1 3/4	..	50 5/8	2 1/4	1/16	2	50 5/8	2 1/4	1/16	2	116 1/16	67 5/8	213 1/8	34	11 3/8
International 103	4	1/4	1 1/4	1 3/4	V	9	2 1/2	6 1/4	3	51	1 3/4	F	.....	.....	.....	...	.....	.....	...	...	146	87 5/8	244	34	12 3/4
Kearns H–1	3	1/8	1	1/16	H	16	2	16	2	33	1	F	42	2	1/8	1	21	2	1/8	2	90	.....	.....	34	.....
Kearns N–1 1/2	3	1/16	1	1/16	H	18	2	18	2	33	1	F	45	2 1/2	1/8	1	22	2 1/4	1/8	2	133 1/2	.....	.....	34	.....
Kearns N–1–2	3	1/4	1 1/4	1/16	V	.....	.....	.....	.....	33	1 1/4	F	42	2 1/4	1/4	4	42	2 1/4	1/4	4	141	94	215 1/2	34	.....
Kearns T–3 1/2	3	1/4	1 1/2	3/8	V	.....	.....	.....	.....	.....	.....	...	22	4	1/4	4	22	3	1/4	4	168	116	274	35	.....
Kearns TF–5	3	1/4	1 1/2	3/8	V	.....	.....	.....	.....	.....	.....	...	32 1/2	3	1/4	4	32 1/2	3	1/4	4	168	116	274	35	.....
Kelly-Springfield K70	4	1/4	1 1/4	1 11/16	V	12 1/4	1 1/2	16	1 1/2	41 3/8	1 1/2	F	17 3/8	2 3/8	1/4	4	17 3/8	1 7/8	1/16	4	132	81	289 3/4	34	.....
Kelly-Springf'd K41–3 1/2–5	4	1/4	1 1/4	1 11/16	V	6 1/2	1 5/8	24	1 1/2	59 5/8	1	V	3 1/16	4 1/2	1/4	12	25 1/8	2 1/2	1/16	4	144	75	248	36	.....
Kelly-Springf'd K61–5 to 7	4	1/4	1 1/4	1 11/16	V	6 1/2	1 5/8	24	1 1/2	59 5/8	1	V	3 1/16	4 1/2	1/4	12	25 1/8	2 1/2	1/16	4	144	85	238	36	.....
Kelly-Springfield K-75-2 1/2	4	1/4	1 1/4	1 11/16	V	7	1 1/2	13	1 1/2	41 3/8	1 1/2	F	3 1/16	4 1/2	1 1/4	12	21 1/4	2 1/2	1/16	4	138	.....	.....	34	.....
Kelly-Springfield K-76-2 1/2	4	1/4	1 1/4	1 11/16	V	7	1 1/2	13	1 1/2	41 3/8	1 1/2	F	17 3/8	2 1/2	1/4	4	17 3/8	1 7/8	1/16	4	138	.....	.....	34	.....
Kenworth K8–2 1/2	4	1/4	1 1/4	1 1/4	H	12	2	14	1 1/4	36	2	...	20	2 1/4	1/4	4	20	2 1/4	1/4	4	133	.....	.....	34	.....
Kenworth M–1 1/2	4	1/4	1 1/4	1 1/4	H	12	2	14	1 1/4	36	2	...	46	2	1/4	2	46	2	1/4	2	114	.....	.....	32	.....
Kenworth L–3	4	1/4	1 1/4	1 1/4	H	13 1/2	2	16	1 1/4	36	2	...	56	2 1/2	1/4	2	56	2 1/2	1/4	2	144	.....	.....	36 1/2	.....
King Zeitler 1	4	1/16	1	1 1/16	V	11	1 1/2	15 1/2	1 1/2	39	1 1/4	F	11	3	1/4	4	11	3	1/4	4	Opt	Opt	Opt	32	10 1/2
King Zeitler 1 1/2	4	1/16	1	1 1/16	V	11	1 1/2	15 1/2	1 1/2	39	1 1/4	F	12 1/4	3 1/4	1/4	4	12 1/4	3 1/4	1/4	4	Opt	Opt	Opt	32	10 3/4
King Zeitler 2 1/2	4	1/4	1 1/4	1 11/16	V	12	1 1/2	16	1 1/2	38	1 1/2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	Opt	Opt	Opt	32	10
King Zeitler 3 1/2	4	1/4	1 1/4	1 11/16	V	12	1 1/2	16	1 1/2	40	1 1/2	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	Opt	Opt	Opt	36	10 3/4
King Zeitler 5	4	1/4	1 1/2	1 11/16	V	14	2	22	2	40 1/2	2	F	19 1/2	4	1/4	4	19 1/2	4	1/4	4	Opt	Opt	Opt	36	10 1/4
Kissel 1 Ton	3	1/8	.....	1 1/4	.....	12 1/4	1 3/4	10	1 1/2	46 3/4	2	F	11	3	1/4	4	12	3 1/4	1/4	4	102	58 1/2	201	34	.....
Kissel Utility 1 1/2	3	1/8	.....	1 1/4	.....	12 1/4	1 3/4	10	1 1/2	46 3/4	2	F	19	2	1/8	4	12	3 1/4	1/4	4	120	70 1/2	219	34	.....
Kissel Freighter 2	3	1/16	.....	1 1/4	.....	12 1/4	1 3/4	10	1 1/2	49	2	F	14	3 1/2	1/4	4	14	3 1/2	1/4	4	144	80	243	34	.....
Kissel Heavy Duty 4	3	1/16	.....	1 1/4	.....	13 3/4	1 3/4	10	1 1/2	52 1/4	2	F	56	2 1/2	1/16	2	56	2 1/2	1/16	2	156	94 3/4	251 1/4	36	.....
Kleiber 1 1/2	4	1/4	1 1/4	.....	V	11	1 1/2	13	1 1/2	45 1/2	1 3/8	F	13	3 1/4	1/4	4	13	3 1/4	1/4	4	114	.....	.....	34	.....
Kleiber 2 1/2	4	1/4	1 1/2	.....	V	12	1 1/2	14	1 1/2	47 1/2	1 3/8	F	14	3 1/2	1/4	4	14	3 1/4	1/4	4	150	.....	.....	34	.....
Kleiber 3 1/2	4	1/4	1 1/2	.....	V	13	1 1/2	14 1/2	1 1/2	47 1/2	1 3/8	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	156	.....	.....	38	.....
Kleiber 5	4	1/4	1 3/4	.....	V	14	1 1/2	15	1 1/2	48 1/2	1 3/4	F	18	4	1/4	4	18	4	1/4	4	171	.....	.....	38	.....
Krebs J–24	4	1/4	1	1/16	V	8	1 1/2	17	1 1/2	42	1 1/2	F	11 1/4	2 1/2	1/4	4	11 1/4	2 1/2	1/4	4	119	64	214	33	10 3/4
Krebs 50	4	1/4	1 1/4	1/16	V	10	1 1/2	17	1 1/2	42	1 1/2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	122	60	222	33	9
Krebs K-45	4	1/4	1 1/4	1/16	V	10	1 1/2	17	1 1/2	42	1 1/2	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	122	60	222	33	10
Krebs 80	4	1/4	1 1/4	1/16	V	11	1 1/2	17	1 1/2	44	2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	131	80	234	33 1/4	9
Krebs L–75	4	1/4	1 1/4	1/16	V	11	1 1/2	17	1 1/2	44	2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	131	80	234	33 1/4	9
Krebs 100	4	1/4	1 1/4	1/16	V	11	1 1/2	17	1 1/2	44	2	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	131	87	234	38	10
Krebs L–110	4	1/4	1 1/4	1/16	V	11	1 1/2	17	1 1/2	44	2	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	131	87	234	38	10
Krebs 130	4	1/4	1 1/2	1/16	V	11	1 1/2	17	1 1/2	44	2	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	126	92	234	38	10
Krebs B–120	4	1/4	1 1/2	1/16	V	11	1 1/2	17	1 1/2	44	2	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	126	92	234	38	10
Lange F–3 1/2	4	1/4	1 11/16	1 5/8	V	4	1 1/2	14	1 1/2	45	1 1/2	F	13 3/4	3 3/4	1/4	4	13 3/4	3 3/4	1/4	4	139	88	227 1/2	37	9 1/2
Lange E–2 1/2	4	1/4	1 1/16	1 5/8	V	7	1 1/2	14	1 1/2	42	1 1/2	F	11 1/2	3 1/2	1/4	4	11 1/2	3 1/2	1/4	4	139	85	229	33	10
Lange G–1 1/2	4	1/4	1 3/16	1 1/16	V	5 1/2	1 1/2	13	1 1/2	40	1 1/4	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	114	73	205	37	9 3/4
Larrabee X2–1–1 1/4 Ton	3	1/16	1 1/4	1 3/4	V	6	1 1/4	14	1 1/4	34	1 1/4	F	50	2	1/8	2	50	2	1/8	2	108	59	205	34	11
Larrabee J4–1 1/2–2 1/4 Ton	4	1/4	1	1 1/2	V	6 1/2	1 1/4	10	1 1/2	41	1 1/4	F	19	2	1/4	4	19	2	1/4	4	108	67 1/2	199	34	10 1/2
Larrabee K5–2 1/2–3 1/2 Ton	4	1/4	1 1/4	1 3/4	V	6	1 1/2	11	1 1/2	45 1/2	1 1/2	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	Opt	Opt	Opt	34	9 3/4
Larrabee L4–3 1/2–4 1/2 Ton	4	1/4	1 1/4	1 3/4	V	6	1 1/2	11	1 1/2	45 1/2	1 1/2	F	21	4	1/4	4	21	3	1/4	4	Opt	Opt	Opt	36	9
Maccar EX–1 1/4	3	1/8	1 1/4	3/8	V	4 1/2	1 1/2	15	1 1/2	35 1/2	1 1/4	F	50	2	1/8	2	48	2	1/8	2	101 5/8	68	192 1/2	37	9 1/2
Maccar V–1, 2	4	1/4	1 1/4	3/8	V	4	1 3/4	19	1 1/2	35	2	F	11 5/8	3 1/4	1/4	4	11 5/8	3 1/4	1/4	4	138 3/4	79 3/4	243 3/8	34	10 1/2
Maccar H–1, 3	4	1/4	1 1/4	3/8	V	4	1 3/4	19	1 1/2	35	2	F	13 1/16	3 1/2	1/4	4	13 1/16	3 1/2	1/4	4	138 3/4	79 3/4	243 3/8	34	9 1/2
Maccar M–2, 4	4	1/4	1 1/4	3/8	V	4	1 3/4	19	1 1/2	35	2	F	14 3/4	3 3/4	1/4	4	14 3/4	3 3/4	1/4	4	156 3/4	91 3/4	263 1/2	34	8 1/2
Maccar G–1, 5	4	1/4	1 1/2	3/8	V	8	1 3/4	16 1/2	1 3/4	40 3/4	2	F	18	4	1/4	4	18	4	1/4	4	163 7/8	99 1/8	278	37 1/2	10
Mack AB–1 1/2,2,2 1/2–T-Ch	3	1/4	1 1/4	1 3/8	V	7 1/2	1 1/4	5 5/8	1 1/4	36 5/8	1 1/4	F	11 5/8	4	1/4	2	16 1/2	2 1/2	1/4	4	Opt	.....	.....	33 1/4	.....
Mack Dual R'd'n–1 1/2,2,2 1/2	3	1/4	1 1/4	1 3/8	V	7 1/2	1 1/4	5 5/8	1 1/4	36 5/8	1 1/4	F	18 1/4	3 1/2	1/4	2	12	6	1/4	2	Opt	.....	.....	33 1/4	.....
Mack AB–Tractor–5	3	1/4	1 1/4	1 3/8	V	7 1/2	1 1/4	5 5/8	1 1/4	36 5/8	1 1/4	F	11 5/8	4	1/4	2	16 1/2	2 1/2	1/4	4	Opt	.....	.....	33 1/4	.....
Mack AC–3 1/2,5,6 1/2,7 1/2	3	1/4	1 1/2	1 5/8	V	5	1 3/4	3 1/4	2	.....	...	...	16 1/2	3	1/4	4	20 1/2	3 1/2	1/4	4	Opt	.....	.....	37 1/2	.....
Mack AC-Trac.–7,10,13,15	3	1/4	1 1/2	1 5/8	V	5	1 3/4	3 1/4	2	.....	...	...	16 1/2	3	1/4	4	20 1/2	3 1/2	1/4	4	Opt	.....	.....	37 1/2	.....
Mason Road King	3	1/4	1 1/4	.....	V	11 5/8	2	14 1/8	1 1/2	.....	1 1/2	F	42 1/16	2 3/4	1/2	1	40 5/8	2 3/4	1/2	1	130 1/16	76 11/16	212 11/16	30	10
Master 22–1 1/2	4	1/4	1 1/4	1 11/16	V	13 1/2	2	12 1/2	1 1/4	30 1/2	1	F	12	3 1/4	1/4	2	12	3 1/4	1/4	2	Opt	.....	.....	34 1/8	.....
Master 41–2 1/2	4	1/4	1 1/4	1 11/16	V	13 1/2	2	12 1/2	1 1/4	31	1 1/4	F	13 1/4	3 1/2	1/4	2	13 1/4	3 1/2	1/4	2	117 3/8	.....	.....	34	.....
Master 51–3 1/2	4	1/4	1 1/2	1 11/16	V	13 1/2	2	15	1 1/4	35	2	F	16	3 3/4	1/4	2	16	3 3/4	1/4	2	147 3/4	.....	.....	36 3/4	.....
Master 61–5	4	1/4	1 1/2	1 11/16	V	13 1/2	2	15	1 1/4	35	2	F	13 1/4	4	1/4	2	18	4	1/4	2	162 3/4	.....	.....	36 3/4	.....
Master 64–5–6	4	1/4	1 1/2	1 11/16	V	13 1/2	2	15	1 1/2	37	2	F	13 1/4	4	1/4	2	18	4	1/4	2	162 7/8	.....	.....	39	.....
Menominee Hurryton –1	3	1/4	1 1/4	1 3/4	V	6	1 1/2	12	1 1/4	40	1 1/4	F	48	2 1/2	1/4	2	11	2 1/2	1/4	2	102 1/16	.....	197	33	10 1/2
Menominee H–1 1/2	3	1/4	1 1/4	1 3/4	V	6	1 1/2	12	1 1/4	40	1 1/4	F	47 1/16	2 1/2	1/4	2	.....	.....	...	...	122	.....	216	32	10 3/8
Menominee D–2	3	1/4	1 1/4	1 3/4	V	3	1 3/4	3	1 1/2	37 3/4	2	F	13 1/2	3 1/2	1/16	8	33 1/4	2 1/2	1/16	2	146	.....	224	32	10 3/8

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING							FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Menominee HT-1¼	3	¼	1¾	1¾	V	6	1½	12	1¼	33¾	1¼	F	47 1/16	2½	1/16	2	33¼	2½	1/16	2	102¾	.....	192	32	10⅜
Menominee J-3, 5	3	¼	1½	2	V	3	1¾	3	1¾	40¾	2	F	69 1/16	3½	1/16	2	52	2½	1/16	2	149	.....	246	38	9
Menominee G-3½	3	¼	1¼	1¾	V	3	1¾	3	1¾	37¾	2	F	15⅝	3¾	¼	4	15⅝	3¾	¼	4	149	.....	246	36	9
Moreland RR-1	3	¼	1	1¼	V	8	1½	11¼	1½	34	1¾	F	49	2½	1/16	2	46	2½	1/16	2	108	56 1/16	208⅜	34	.....
Moreland BX-1½	3	¼	1	1¼	V	8	1½	11¼	1½	34	1¾	F	12	3¼	¼	4	12	3¼	¼	4	108	56 1/16	208⅜	34	.....
Moreland EX-2	3	¼	1¼	1½	V	9	1½	14	1½	42	1¾	F	12	3¼	¼	4	12	3¼	¼	4	132	79⅛	226¼	34	.....
Moreland AX-3	3	¼	1¼	1½	V	9	1½	13	1½	42	1¾	F	13½	3½	¼	4	13½	3½	¼	4	174	101¼	253	34	.....
Moreland RX-5	4	¼	1½	1¾	V	8	1½	14½	1½	42	2	F	15½	3¾	¼	4	15½	3¾	¼	4	192	115¼	271	38	.....
Moreland RC-Bus	3	¼	1	1¼	H	8	1½	11¼	1½	24	1½	F	49	2½	¼	2	46	2½	¼	2	156	100	256	34	7
Moreland EC-Bus	3	¼	1¼	1½	H	9	1½	13	1½	42	1½	F	13½	3½	¼	4	13½	3½	¼	4	152	102	254	34	8
Moreland AC-Bus	3	¼	1¼	1½	H	9	1½	13	1½	42	1½	F	15½	3¾	¼	4	15½	3¾	¼	4	171	114¼	271	44	7
Nash 2018-1-1½	4	¼	1¼	1¼	....	3	1½	7¾	1¼	36	1	F	49⅛	2	1/16	2	20 1/16	2½	1/16	1	104½	61	193	30½	9¾
Nash 3018-2-2½	4	¼	1¼	1¼	....	3	1½	.....	.....	44	1	F	50⅝	3	1/16	2	20 1/16	2½	1/16	1	118¼	65	207	31⅝	9¾
Nash 4017-2-2½	3	¼	1¼	1¼	....	7	1½	.....	.....	44	2	F	49½	2½	¼	4	25 1/16	2	¼	1	117⅜	85½	202½	38⅛	14¾
National M	3	¼	1	1/16	V	16	2½	14	2½	40	1½	F	12	3¼	¼	4	12	3¼	¼	4	116	65	208	34	9½
National T	3	¼	1¼	1/16	V	12	1½	18	1½	42	1¾	F	13½	3½	¼	4	13½	3½	¼	4	123½	80½	220	34	9 7/16
National NB-3½	3	¼	1½	1/16	V	10	1½	17	1½	40	1¾	F	16	3¾	¼	4	16	3¾	¼	4	142	91	243	36	8 1/16
Nelson & LeMoon G-1	4	¼	1	1/16	V	8	1⅜	3½	1⅜	39½	1⅛	F	11½	2½	1/16	2	11½	2½	1/16	2	65	.....	.....	.....	11
Nelson & LeMoon G-1½	4	¼	1	1/16	V	8	1⅜	3½	1⅜	39½	1⅛	F	11½	3	1/16	2	11½	3	1/16	2	Opt	.....	.....	.....	11
Nelson & LeMoon G-2	4	¼	1¼	1/16	V	9	1⅜	3½	1⅜	41¼	1¼	..	12	3¼	¼	2	12	3¼	¼	2	Opt	.....	.....	.....	11
Nelson & LeMoon G-3	4	¼	1¼	1/16	V	9	1⅜	3½	1⅜	41¼	1¼	..	13½	3½	¼	2	13½	3½	¼	2	Opt	.....	.....	.....	11
Nelson & LeMoon G-4	4	¼	1¼	1/16	V	9	1⅜	3½	1⅜	41¼	1¼	...	16½	3¾	¼	2	16½	3¾	¼	2	Opt	.....	.....	.....	11
Nelson & LeMoon G-5	4	¼	1½	1/16	V	12	2	6	2	40½	2	...	18	4	¼	2	18	4	¼	2	Opt	.....	.....	.....	11
Netco DK-2	3	1/16	1¼	1 1/16	V	12	1½	16	1¼	40 1/16	1½	F	13 1/16	3½	¼	4	13 1/16	3½	¼	4	142	94	234½	34¼	9
Netco HL-2½-3	3	1/16	1½	1 1/16	V	13	1½	16	1¼	41¼	1½	F	13 1/16	3½	¼	4	13 1/16	3½	¼	4	139½	93½	234½	34¼	9
Noble A-76-1½	4	1/16	1	1 1/16	V	10	1¾	12½	1¼	33½	1½	F	47	2½	¼	2	45	2½	¼	2	100	58	191	34	.....
Noble A-21-1½	4	1/16	1	1 1/16	....	10	1¾	12½	1¼	33½	1½	F	19	2	¼	2	19	2	¼	2	102	74	203	34	.....
Noble B-31-2	4	1/16	1	1 1/16	....	7	1⅞	16½	1¼	34¼	1⅞	F	43	2	¼	2	43	2	¼	2	126	80	221	34	.....
Noble D-52-3	4	¼	1¼	1 1/16	....	9	2	12	1¼	34¼	1⅞	F	21	2¼	¼	4	21	2¼	¼	4	.....	101	207	34	.....
Noble E-72-4	4	¼	1¼	1 1/16	....	14½	2	16	1¼	34¼	1⅞	F	57	2½	¼	2	57	2½	¼	2	.....	114	218	36	.....
Northway B-2-2	3	1/16	1 1/16	1¾	V	5¼	2¼	13⅞	1¼	46 11/16	5/16	V	50½	2¼	¼	2	50½	2¼	¼	2	133	62	223½	33	9
Northway B-3-3½	3	1/16	1 1/16	1¾	V	5¼	2¼	13⅞	1¼	46 11/16	5/16	V	54	2½	¼	2	54	2½	¼	2	173	92	253¼	34 5/8	11
Ogden A-2-1	3	1/16	1	1	H	12	2	6	2	44	¾	V	11	2½	¼	4	11	2½	¼	4	108	56	186	33¼	10½
Ogden D-1½	3	1/16	1	1	V	13	2	12	2	44	¾	V	F	10 11/16	3	¼	4	10 11/16	3	¼	4	120	.....	.....	33¼	.....
Ogden E-2½	3	1/16	1¼	2	V	10	1 1/16	14	1 1/16	30	1¼	F	52	2¼	¼	1	52	2¼	¼	1	144	.....	.....	33¼	.....
Ogden F-3½	3	¼	1¼	2	V	11	1/16	16	1½	36	1½	F	15⅝	3¾	¼	4	3/8	3¾	¼	4	168	.....	.....	37	.....
Ogden G-5	3	¼	1½	3	V	9	2	18	2	40	2	F	11	6	¼	2	25	4	¼	4	168	.....	.....	37	.....
Old Reliable B-2½	3	¼	1¼	1¼	....	.....	.....	.....	.....	.....	.....	...	54	2	¼	1	54	2	¼	1	144	.....	.....	32	.....
Old Reliable C-3½	3	¼	1½	1½	....	.....	.....	.....	.....	.....	.....	...	60	2½	¼	1	60	2½	¼	1	150	.....	.....	32	.....
Old Reliable D-5	3	¼	1½	1½	....	.....	.....	.....	.....	.....	.....	...	72	3	¼	1	72	3	¼	1	156	.....	.....	34	.....
Old Reliable K. L. M. -7	3	¼	1½	1½	....	.....	.....	.....	.....	.....	.....	...	54	3½	¼	1	60	4	¼	1	158	.....	.....	36	...
Oneida B9-2	3	1/16	1¼	1½	H	9½	1¼	9½	1¼	38½	2	F	48	2½	1/16	2	34	2½	1/16	2	114	.....	.....	34	.....
Oneida C9-2½	3	1/16	1¼	1½	H	9½	1¼	9½	1¼	38½	2	F	58	2½	1/16	2	43	2½	1/16	2	138	.....	.....	34	.....
Oneida D9-3½	3	¼	1¼	1½	H	7	1½	9½	1½	40	2	F	16	3¾	¼	4	16	3¼	¼	4	155¾	.....	.....	36	.....
Oneida E9-5	3	¼	1¼	1½	H	7½	1¾	9½	1½	40	2	F	18	4	1/16	4	18	4	1/16	4	177	.....	.....	38	.....
Oshkosh AW-2	3	1/16	1¼	1½	H	16	2	17	2	33¼	1¼	F	23 5/16	3½	¼	1	43½	2½	1/16	2	108	75 5/16	189	34	.....
Oshkosh AAW-2	3	1/16	1¼	1½	H	16	2	17	2	33¼	1¼	F	23 5/16	3½	¼	1	43½	2½	1/16	2	144	110 5/16	224	34	.....
Oshkosh BO-2½	4	1/16	1¼	1¾	V	9¾	1½	12	1½	36½	2	F	23 5/16	4½	5/16	1	43½	2½	1/16	2	125	85½	211	34	.....
Oshkosh BBO2½	4	1/16	1¼	1¾	V	9¾	1½	12	1½	36½	2	F	23 5/16	4½	5/16	1	43½	2½	1/16	2	144	104½	230	34	.....
Overland ½	4	1/16	1 1/16	1⅜	H	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	...	31¼	29	127¼	26	9½
Parker B-23	4	1/16	1	1¼	V	9	2	6	1¼	32	1½	F	42	2¾	1/16	2	42	2¾	1/16	2	94½	58½	184½	33	10
Parker E-24	3	1/16	1	1¼	V	4	1¼	16	1¼	35¼	1¼	F	47	2½	1/16	2	32¾	2½	1/16	2	113½	70½	200	33	9¾
Parker G24-2½	3	¼	1¼	1½	V	19	1¾	16½	1½	38	2	F	10¾	5	¼	2	19	2½	¼	4	127	79	219	33	9⅞
Parker J24-3½	3	¼	1¼	1½	V	19	1¾	16½	1½	38	2	F	10¾	5	¼	2	19	3½	¼	4	139½	90	231½	33	11
Parker M20-5	3	¼	1½	1¾	V	14	1¾	18	1¾	40½	2	F	10¾	5	¼	2	24½	4	¼	4	145	83½	243½	37	10¼
Parker F24-2	3	¼	1¼	1½	V	19	1¾	16½	1½	38	2	F	47	2½	1/16	2	32¾	2½	1/16	2	127	79	222	33	9½
Patriot 7R-1	3	1/16	3/8	H	8	2	9	2	39	¼	F	40½	1¾	1/16	1	40½	1¾	1/16	1	93	56	184	33¼	11¾
Patriot 9-L-2	3	1/16	3/8	V	6	1¼	8	1½	37	1¾	F	40½	1¾	1/16	1	40½	1¾	1/16	1	113	65	207	34	10
Patriot 11W-3	3	¼	1 1/16	3/8	V	11	1½	10	2	39	2	F	58	2½	¼	1	43	2½	¼	1	150	82	246	34	10
Penn 1	4	1/16	1 1/16	1⅜	H	12	2 1/16	7¼	2 1/16	33¼	⅞	F	40	1½	1/16	4	40	1½	1/16	4	89	52	178	34	9½
Penn 2	3	¼	1	....	V	8	2⅛	8	2⅛	38	1	F	50½	3	1/16	1	46¾	2	1/16	1	124	80	214	38	12
Pierce Arrow XA-2	3	1/16	1 1/16	1⅝	V	16⅜	2⅜	14¼	2⅛	43½	1½	F	22 11/16	2¼	¼	4	22 1/16	2¼	¼	4	125 1/16	70 11/16	225	34 1/16	8⅛
Pierce Arrow XB-3	3	1/16	1 11/16	1⅝	V	16⅜	2⅜	14¼	2⅛	43½	1½	F	22 11/16	2¼	¼	4	22 1/16	2¼	¼	4	125 1/16	70 11/16	225	34 1/16	8⅛
Pierce Arrow WC-4	3	1/16	1 11/16	1⅞	V	11	2⅜	15½	2⅛	43½	1½	F	9 1/16	6	¼	2	18	4¾	1/16	4	133¼	78¾	237	38 1/16	7 11/16
Pierce Arrow WD-5	3	1/16	1 11/16	1⅞	V	11	2⅜	15½	2⅛	43½	1½	F	9 1/16	6	¼	2	18	4¾	1/16	4	133¼	78¾	237	38 1/16	7 11/16
Pierce Arrow RE-6	3	1/16	1 11/16	1⅞	V	11	2⅜	15½	2⅛	43½	1½	F	9 1/16	6	¼	2	20 7/16	4¾	1/16	4	139¼	84¾	243	38 1/16	8 1/16
Pierce Arrow RF-7½	3	1/16	1 11/16	1⅞	V	11	2⅜	15½	2⅛	43½	1½	F	9 1/16	6	¼	4	20 7/16	4¾	1/16	4	139¼	84¾	243	38 1/16	8 1/16
Pierce Arrow XB-TT	3	1/16	1 11/16	1⅝	V	16⅜	2⅜	14¼	2⅛	43½	1½	F	22 1/16	2¼	¼	4	22 1/16	2¼	¼	4	77 1/16	48 11/16	172½	34 1/16	8⅛
Pierce Arrow WD-TT	3	1/16	1 11/16	1⅞	V	11	2⅜	15½	2⅛	43½	1½	F	9 1/16	6	¼	2	18	4¾	1/16	4	77¼	48¾	173⅝	38 1/16	7 11/16
Pierce Arrow RF-TT	3	1/16	1 11/16	1⅞	V	11	2⅜	15½	2⅛	43½	1½	F	9 1/16	6	¼	2	20 7/16	4¾	1/16	4	77¼	48¾	173⅝	38 1/16	8 1/16
Pioneer 59AA-1	3	1/16	1¼	1½	V	13	2	12	2	35	1	F	14	1¾	1/16	4	14	1¾	1/16	4	102	.....	.....	30	.....
Power 1½	3	1/16	1	....	V	8	1¼	10	1¼	36	1½	F	11 3/16	3¼	¼	4	11	3¼	¼	4	.....	.....	.....	32	10½
Power F-2½	3	1/16	1	....	V	8	1¼	12¼	1¼	36	1½	F	26½	2	¼	4	26¼	2	¼	4	143	.....	.....	32	12
Power C-3½	3	¼	1¼	....	V	9	1½	12	1½	36	1½	F	59	2¼	¼	1	45	2¼	¼	1	.....	.....	.....	36	12
Rainier R31-¾	3	1/16	1	1/16	V	9	2	6	2	43¾	5/16	V	11	2½	¼	4	11	2½	¼	4	86½	50⅜	181	34	11¾
Rainier R29-1	3	1/16	1	1/16	V	9	2	6	2	43¾	5/16	V	11	2½	¼	4	11	2½	¼	4	96½	57⅜	190¼	34	10¼
Rainier R36-1½	4	1/16	1	1/16	V	8	1½	14	1½	40	1¼	F	11¾	3¼	¼	4	11	3¼	¼	4	111	72¼	206½	34	9⅝
Rainier R28-2-2½	4	¼	1¼	1/16	V	9½	1½	14	1½	42	1¼	F	20	2¼	¼	4	20	2¼	¼	4	124¾	80½	225	33	9⅝
Rainier R20-2½-3	4	¼	1¼	1/16	V	9½	1½	14	1½	42	1¼	F	13	3½	¼	4	13	3½	¼	4	137½	85½	241¾	33	10
Rainier R25-3½-5	4	¼	1¼	1/16	V	9½	1½	14	1½	42	1¼	F	15½	3¾	¼	4	15½	3¾	¼	4	157½	91	263⅞	37	8¾
Rainier R27-6-7	4	¼	1½	1/16	V	9½	1½	14	1½	42	1¾	F	18	4	¼	4	18	4	¼	4	154½	88	263⅞	37	9½
Red Ball	3	¼	1 1/16	1/16	V	8	1½	14	1½	42	1½	F	58	2½	1/16	2	43	2½	1/16	2	167½	104½	267	34	10½
Reo F-2500 lbs	3	1/16	1	1¼	V	5½	1	5½	1	39 1/16	1/16	V	45⅞	3	1/16	1	40 1/16	3	1/16	1	81 1/16	55¾	171	30	10¼
Rowe CDW-2½	3	¼	1¼	1/16	V	18	1¾	16	1½	37	2	...	20	2¼	¼	4	20	2¼	¼	4	139½	81¼	224¾	33	9¾
Rowe GSW-3	3	¼	1¼	1/16	V	18	1¾	16	1½	37	2	...	20	2¼	¼	4	20	2¼	¼	4	139½	81¼	224¾	33	9¾
Rowe HW-4	3	¼	1¼	1/16	V	18	1¾	16	1½	37	2	...	22	4	¼	4	22	3	¼	4	163½	99	249½	36	9
Rowe FW-5	3	¼	1⅜	1/16	V	11	1¾	17	1¾	43	2	...	68	3	¼	2	60	3	¼	2	175½	107¾	265	38½	10½
Ruggles 15-¾	3	1/16	1	1/16	V	12½	2	20	2	34¾	1¼	F	43⅞	2	1/16	2	39	1¾	1/16	2	128	97½	170	38½	9¼
Ruggles 20R-1¼	3	¼	1¼	1/16	V	7½	2	13½	1¼	35	1½	F	48	2½	1/16	2	46 5/16	2¼	1/16	2	96 5/16	55⅜	186¾	34	11
Ruggles 20AR-1¼	3	¼	1¼	1/16	V	7½	2	13½	1¼	35	1½	F	48	2½	1/16	2	46 5/16	2¼	1/16	2	104½	65	194¾	34	11
Ruggles 40-2	3	¼	1¼	1/16	V	7½	2	13½	1¼	35	1½	F	47½	2½	1/16	2	33¼	2½	1/16	2	134¼	75½	224	34	8¼
Ruggles 40H-2½	3	¼	1¼	1/16	V	7½	2	13½	1¼	35	1½	F	58	2½	1/16	2	44	2½	1/16	2	134¼	75½	224	34	9¼

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	★ Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Sandow G–1	3	5/16	1 1/4	1	H	9	2	7	2	38 3/4	3/4	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	96	.....	205	34	10 1/2
Sandow C–G–1 1/2	3	5/16	1 1/4	1	H	9	2	7	2	38 3/4	3/4	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	120	.....	.....	34	10 1/2
Sandow J–2 1/2	3	5/16	1 1/2	1 1/4	V	7	1 1/4	13	1 1/4	39	7/8	F	11 3/4	3 1/2	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	32	10 1/2
Sandow M–3 1/2	3	5/16	1 3/4	1 1/4	V	9	1 1/2	13	1 1/4	40	7/8	F	13 1/2	4	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	37	11
Sandow L–5	...	...	...	...	...	...	...	...	...	...	...	...	13 1/2	4	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	37	11
Sanford W15–1 1/2	3	5/16	1	1	H	9	2 1/4	11	1 1/2	40	5/8	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	120	71 3/4	205 3/4	32	11
Sanford 25–2 1/2	3	5/16	1 1/4	1 1/4	V	8	1 1/2	11	1 1/2	46	1 1/2	F	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	144	109 1/2	238	35	9 3/4
Sanford 35–3 1/2	3	5/16	1 1/4	1 1/4	V	9	1 1/2	11	1 1/2	46	1 1/2	F	55 3/4	4	1/4	4	55 3/4	2 1/2	1/4	2	144	97 1/2	244	35	8 11/16
Sanford 50–5	3	5/16	1 1/4	1 1/4	V	9	1 1/2	11	1 1/2	46	1 1/2	F	65	2	1/4	2	65	2	1/4	2	144	97 1/2	244	35	10 1/2
Saurer 5AD–6 1/2	4	1/4	1 1/2	1 3/8	V	6	1 3/8	10	1 3/8	47 1/2	1 1/2	F	...	...	...	...	...	...	...	...	Opt	Opt	Opt	33 1/2	10
Schacht H–1 1/2	3	5/16	1 1/4	2	H	4 1/4	1 3/4	15	1 1/4	38	1 1/4	F	33	2 1/2	5/16	1	48	2 1/2	5/16	1	.....	.....	.....	31	.....
Schacht G–2–2 1/2–3	4	1/4	1 1/4	2	H	18	2	14	1 1/4	40	2	F	8 1/4	3	1/4	4	13 1/2	3 1/4	1/4	4	.....	.....	.....	35 3/4	.....
Schacht G–4–5	4	1/4	1 1/4	2	H	18	2	14	1 1/4	40	2	F	8 1/4	3	1/4	4	15	4	3/8	4	.....	.....	.....	35 3/4	.....
Selden 30C	4	5/16	1	1 1/16	V	6	1 1/2	11 1/2	1 1/2	41	1 1/4	F	11 7/16	3 1/4	1/4	4	11 7/16	3 1/4	1/4	4	114	71	198 1/2	34	.....
Selden 50B	4	1/4	1	1 1/16	V	8 3/8	1 1/2	14 3/4	1 1/2	39 1/4	1 1/2	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	136	82	227 3/4	34	.....
Selden 52	4	1/4	1 1/4	1 11/16	V	8 3/8	1 1/2	16 1/4	1 1/2	40 3/8	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	240	161	295	52	.....
Selden 53B	4	1/4	1 1/4	1 11/16	V	11 1/2	1 1/2	16 1/4	1 1/2	40 3/8	2	F	13	3 1/2	1/4	3	13	3 1/2	1/4	4	136	82	244	34	.....
Selden 70B	4	1/4	1 1/4	1 11/16	V	8 3/8	1 1/2	16 3/4	1 1/2	40 3/8	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	155	91	253 1/16	37 1/2	.....
Selden 73B	4	1/4	...	...	V	9	1 3/4	14 3/4	1 1/2	40 3/8	2	F	...	...	...	...	...	...	...	...	155	91	.....	.....	.....
Selden 90B	4	1/4	1 1/2	1 11/16	V	7	1 3/4	16 3/4	1 1/2	40 3/8	2	F	17 11/16	4	1/4	4	17 11/16	4	1/4	4	153	89	256 1/16	37 1/2	.....
Service 25–1 1/4	3	5/16	1	5/16	V	12 1/2	1 3/4	13	1 1/4	32 3/16	1 1/2	F	20	1 3/4	5/16	4	20	1 3/4	5/16	4	106 3/4	65 3/4	203 1/2	32	9 1/4
Service 33–1 1/2	4	1/4	1	5/16	V	8	1 3/4	10	1 1/4	38	3/4	V	11	3	1/4	4	11	3	1/4	4	121	76 3/4	216 1/16	34	10 1/2
Service 42–2	4	1/4	1 1/4	5/16	V	10	2	10	1 1/4	38	3/4	V	11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	117 3/4	81 3/4	216 1/16	34	10 3/4
Service 61–3	4	1/4	1 3/4	5/16	V	10	2	10	1 1/4	38	3/4	V	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	127 3/4	92 1/4	226 1/16	34	10
Service 81–4	4	1/4	1 3/4	5/16	V	10	2	11 1/2	1 1/4	40 3/4	3/4	V	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	144	100 1/2	245 11/16	38	8 1/2
Service 103–6	4	1/4	1 3/4	5/16	V	10	2	11 1/2	1 1/4	40 3/4	3/4	V	18	4	1/4	4	18	4	1/4	4	144	100 3/4	245 11/16	38	10
Standard 75–1 1/4	3	5/16	1	1 5/16	V	10 1/2	2 1/16	14 3/4	1 1/16	39 1/4	1 1/4	F	11 3/4	2 1/2	1/4	4	11 3/4	2 1/2	1/4	4	108	62 1/2	198	32	9 3/4
Standard 1 1/2K–1–1 1/2	3	5/16	1	1 5/16	V	10 1/2	2 1/16	14 3/4	1 1/16	39 1/4	1 1/4	F	10 7/8	3	1/4	4	10 7/8	3	1/4	4	120	72 1/2	210	32	9 7/8
Standard 2 1/2K–2 1/2–3	3	5/16	1 1/4	1 11/16	V	10	1 7/8	16	1 7/8	40 7/8	1 1/2	F	13 3/4	3 1/2	1/4	4	13 3/4	3 1/2	1/4	4	132	83	220 3/8	32	12
Standard 3 1/2K–3 1/2–5	3	5/16	1 1/4	1 11/16	V	10	1 7/8	16	1 7/8	41 1/2	1 1/2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	144	93 3/4	240	38	9 1/2
Standard 5K–5–7	3	1/4	1 1/2	1 11/16	V	8	1 7/8	3 1/2	1 7/8	42 1/4	1 3/4	F	17 11/16	4	1/4	4	17	4	1/4	4	144	93 3/4	244 1/2	38	9
Sterling 1 1/2	3	1/4	1 1/4	1/4	V	10	1 1/2	19	1 1/2	38	1 1/2	F	11 1/16	3 1/4	1/4	4	11 1/16	3 1/4	1/4	4	120	70	216	34	.....
Sterling 2	3	1/4	1 1/4	1/4	V	10	1 1/2	19	1 1/2	38	1 1/2	F	13 3/8	3 1/2	1/4	4	13 3/8	3 1/2	1/4	4	120	70	216	34	.....
Sterling 2 1/2	3	1/4	1 1/4	1/4	V	10	1 1/2	19	1 1/2	38	1 1/2	F	13 3/8	3 1/2	1/4	4	13 3/8	3 1/2	1/4	4	138	84	234	34	.....
Sterling 3 1/2	3	1/4	1 1/2	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	144	85	245	38	.....
Sterling 5–Worm	3	1/4	1 1/2	1/4	V	10	1 1/2	19	1 1/2	40 1/2	1 1/2	F	17 3/4	1	1/4	4	17 3/4	4	1/4	4	158	91	259	38	.....
Sterling 5–Chain E.H.D	3	1/4	1 1/2	1/4	V	10	1 1/2	19	1 1/2	40 1/2	1 1/2	F	56 1/16	3 1/2	1/4	2	29 1/16	4	1/4	1	158	97	259	38	.....
Sterling 5–Ch. E.L.D	3	1/4	1 1/2	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1 1/2	F	56 1/16	3 1/2	1/4	2	29 1/16	4	1/4	1	158	97	259	38	.....
Sterling 7 1/2	3	1/4	1 1/2	1/4	V	10	1 1/2	19	1 1/2	40 1/2	1 1/2	F	56 1/16	3 1/2	1/4	2	29 1/16	4	1/4	1	158	97	259	38	.....
Stewart M15–1 1/4	3	5/16	...	1	...	...	...	...	...	...	...	...	41 7/8	2	5/16	2	22 3/4	2	5/16	1	99 1/2	.....	.....	38	.....
Stewart M9–1 1/2	3	5/16	...	1	...	...	...	...	...	...	...	...	48 1/2	2	5/16	2	8	5	5/16	2	119 1/4	.....	.....	32	.....
Stewart M7X	3	1/4	...	1 1/8	...	...	...	...	...	...	...	...	50 3/8	2	5/16	2	8	5	5/16	2	132 3/4	.....	.....	32	.....
Stewart M10X	3	1/4	...	1 3/8	...	...	...	...	...	...	...	...	60	3	5/16	2	8	5	5/16	2	138	.....	.....	32	.....
Super Truck 50	3	1/4	1 1/4	1 11/16	V	18 1/2	1 3/4	19	1 1/2	37 1/2	1 7/8	F	51 1/2	2 1/4	1/4	2	51 1/2	1 1/4	1/4	2	135	84	243	36	9 1/4
Super Truck 70	3	1/4	1 1/4	1 11/16	V	18 1/2	1 3/4	19	1 1/2	37 1/2	1 7/8	F	55 1/2	2 1/2	1/4	2	55 1/2	2 1/4	1/4	2	144	97 7/8	249	34	10 3/4
Super Truck 100	3	1/4	1 1/2	1 11/16	V	6	1 3/4	19	1 3/4	42	1 7/8	F	68	3	1/4	2	51 1/2	3	1/4	2	144	97 7/8	249	34	10
Traffic C–4000	3	5/16	1	5/16	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	43 1/2	2 1/2	5/16	2	38	1 3/4	5/16	2	120 3/4	67 3/4	213 3/8	42	10 3/4
Traffic 6000	3	5/16	1	5/16	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	52	3	5/16	2	47	2	5/16	2	120 3/4	69 3/4	213 3/8	34	11 3/4
Traffic Speedboy	3	5/16	1	5/16	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	43 1/2	2 1/2	5/16	2	38	1 3/4	5/16	2	86	53 7/8	174	34	11 3/4
Transport 15–1	3	5/16	1	1	H	10 3/4	2	13	2	40 3/8	1 1/4	F	48	2 1/2	5/16	2	46 5/8	2 1/4	5/16	2	98 1/8	57 3/8	188	34	10
Transport 26–1 1/2	4	5/16	1	1	V	9 1/4	2	13	1 1/4	34 3/8	1 3/4	F	48 1/2	2	5/16	2	46 1/2	1 1/2	5/16	2	113 7/8	70 1/4	201	34	10
Transport 36–2	4	1/4	1 1/4	1 1/4	V	10 3/4	2	16	1 1/4	33 1/2	2	F	10 1/4	3 1/2	5/16	4	46 1/2	1 1/2	5/16	2	120 1/4	72 3/4	210	34	11
Transport 61–3 1/2	4	1/4	1 1/4	1 1/4	V	9 1/4	2	16	1 1/4	33 1/2	2	F	11 7/8	3	5/16	4	48 1/2	2 1/2	5/16	2	127 3/8	78 1/8	218	34	11
Transport 75–5	4	1/4	1 1/4	1 1/4	V	12	2	16	1 1/4	35 7/8	2	F	11 7/8	3	5/16	4	58	2 1/2	5/16	2	150 1/8	93 1/8	251 1/2	36 1/2	10 1/2
Traylor B	4	1/4	1	...	V	10	2	6	1 1/4	38	1	F	50	2	1/4	2	50	2	1/4	2	117	75	204 3/4	34	10
Traylor C	4	1/4	1 1/4	...	V	12	2	12	1 1/4	36	2	F	50	2	1/4	2	50	2	1/4	2	122	73 1/2	218 3/4	34	10 1/2
Traylor D	4	1/4	1 1/4	...	V	12	2	12	1 1/4	36	2	F	56 1/2	2 1/4	1/4	2	56 1/2	2 1/4	1/4	2	142	76	241 1/2	34	9 3/4
Traylor F	4	1/4	1 3/4	...	V	14	2	14	1 3/4	37	2	F	59	2 1/2	...	2	59	2 1/2	...	2	165	92 1/2	273 1/4	35	11
Triangle AA–1	3	5/16	1	1	H	17	2	17	2	34	1	F	22 1/2	1 1/4	1/4	1	48	2 1/2	5/16	2	94	53	177	35	10
Triangle A–2	4	1/4	1	1	V	14	1 1/4	14 1/2	1 1/4	39 1/4	1 1/2	F	7 1/2	4	5/16	2	49	2	5/16	2	126	77 1/2	225	34	12
Triangle B–3	3	1/4	1 1/4	1 1/4	V	9	1 1/2	18	1 1/4	39 1/4	1 1/2	F	7 1/2	4	5/16	2	52	3	5/16	2	132	84 1/2	217 1/2	34	9
Triangle C–2 1/2	4	1/4	1	1	V	14	1 1/4	14 1/2	1 1/4	39 1/4	1 1/2	F	7 1/2	4	5/16	2	52	3	5/16	2	129	81	219 7/8	34	12
Union FW–2 1/2	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	27	4 1/2	1/4	1	52	3	1/4	1	133 1/2	77 3/4	224	32	11 1/2
Union H–4	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	56 3/4	3 1/2	1/4	1	32	4 1/2	1/4	1	157 1/2	.....	.....	34	.....
Union HW–4	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	27	4 1/4	1/4	1	24	4	1/4	2	157 1/2	98	264	34	13 1/2
United 25	3	1/4	1 1/4	5/16	V	10	2	13 1/2	2	32 3/4	1 1/2	F	48	2 1/2	5/16	2	46 5/8	2 1/4	5/16	2	91 7/8	53 5/8	182	33	9 1/4
United 30	3	1/4	1 1/4	5/16	V	10	2	13 1/2	2	32 3/4	1 1/2	F	48	2 1/2	5/16	2	46 5/8	2 1/4	5/16	2	115 5/8	75 5/8	206	33	10 1/2
United 35	3	1/4	1 1/4	5/16	V	10	2	13 1/2	2	32 3/4	1 1/2	F	47 1/16	2 1/2	5/16	2	33 1/4	2 1/2	5/16	2	115 5/8	76 5/8	206	33	9
United 50	3	1/4	1 1/4	5/16	V	10	2	13 1/2	2	32 3/4	1 1/2	F	47 1/16	2 1/2	5/16	2	33 1/4	2 1/2	5/16	2	115 5/8	80 5/8	226	33	8 1/2
United 60	3	1/4	1 1/4	5/16	V	10	2	13 1/2	2	32 3/4	1 1/2	F	57 1/2	2 1/2	5/16	2	42 1/2	2 1/2	5/16	2	132 5/8	80 5/8	226	33	8 1/2
United 80	4	5/16	1 1/4	5/16	V	8 5/8	2	13 3/4	1 1/2	42	2	F	60	3	1/4	2	60	3	1/4	2	141 5/8	81 1/4	237 5/8	34	9 5/16
U.S.U.–1 1/4	4	5/16	1	1/8	V	11 1/2	1 3/4	11 1/2	1 1/4	33	1 1/4	F	50 1/2	2 1/2	5/16	2	20	1 1/2	5/16	4	108	70	195	32	9 3/4
U.S.N.–1 1/2	3	M	1	1/8	H	11 1/2	2	9	1 1/4	37	1 1/4	F	50 1/2	2 1/2	5/16	2	46 1/2	1 1/2	5/16	2	120	82	211	34	11
U.S.N.W. 24–2	4	5/16	...	1/8	H	10 3/4	1 3/4	11 1/2	1 1/4	33	1 1/4	F	21	2 1/4	...	4	21	2 1/4	5/16	4	120	82	211	34	11
U.S.R.–2 1/2–3	3	5/16	1 1/4	1/8	V	10	1 1/4	10	1 1/4	35	1 1/4	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	144	94	241	34	9 1/4
U.S.S.–3 1/2–4	3	1/4	1 1/4	1/4	V	9	1 1/2	8	1 1/2	37	1 1/4	F	21	4	1/4	4	21	3	1/4	4	156	104	258	36	9
U.S.T. 5–7	4	1/4	1 1/2	1/4	V	15	2	13	1 1/2	38 3/4	2	F	62	3	1/4	4	33	4	1/4	1	168	103	278	36	10 1/2
U.S.S. Spec. 4–5	3	1/4	1 1/4	1/4	V	9	1 1/2	8	1 1/2	37	1 1/4	F	21	4	1/4	4	21	3	1/4	4	156	104	258	36	.....
Wachusett S–1	3	5/16	1 1/4	5/16	V	9 1/2	1 1/4	11	1 1/4	31 1/2	1 1/4	F	11 1/4	2 1/2	1/4	2	11 1/4	2 1/2	1/4	2	115	74	212	33	.....
Wachusett J–1 1/2	4	5/16	1 1/4	5/16	V	10	1 1/2	10 1/2	1 1/2	36	1 1/16	F	11	3	1/4	2	11	3	1/4	2	121	76	212	33	.....
Wachusett K2	4	5/16	1 1/4	5/16	V	11	1 1/2	11	1 1/2	40 1/16	1 1/16	F	11 3/4	3 1/4	1/4	2	11 3/4	3 1/4	1/4	2	145	78	240	33	.....
Wachusett L2 1/2	4	1/4	1 1/4	5/16	V	10	1 1/2	11	1 1/2	41 1/2	1 1/16	F	13 1/2	3 1/2	1/4	2	13 1/2	3 1/2	1/4	2	144	94	241	33	.....
Walker 12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	2 1/2	1/4	8	72	.....	.....	32	.....
Walker 15	...	...	...	...	...	...	...	...	...	...	...	...	45 1/2	2 1/2	5/16	2	16	2	5/16	4	90	.....	.....	32	.....
Walker P–3 1/2	...	...	...	...	...	...	...	...	...	...	...	...	53 3/4	3	1/4	2	19 1/4	2 1/2	1/4	4	140	.....	.....	35	.....
Walker N–5	...	...	...	...	...	...	...	...	...	...	...	...	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	162	.....	.....	35	.....
Walker 22	...	...	...	...	...	...	...	...	...	...	...	...	45 1/2	2 1/2	5/16	2	16	2	5/16	4	99	.....	.....	32	.....
Walker 42	...	...	...	...	...	...	...	...	...	...	...	...	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	120	.....	.....	32	.....
Walker Johnson L–1 1/2	3	5/16	1 1/4	1 11/16	V	7	1 1/4	6	1 1/4	36	1 1/4	F	11 1/2	3	1/4	4	11 1/2	3	1/4	4	111 1/2	69	206	32	10
Walker Johnson B–3	3	1/4	1 1/4	1 11/16	V	7	1 1/2	5	1 1/2	36	1 1/4	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	133	74 1/2	223	32 1/16	10 1/2
Walter F	3	1/4	1 1/2	2	V	10	1 1/2	18	1 1/2	39	1 1/2	F	30	5	1/4	4	57	2 1/2	1/4	2	Opt	.....	.....	36	14
Ward LaFr'e 2B–2 1/2–3 1/2	3	1/4	1 1/4	1 1/2	V	7	1 1/2	16	1 1/2	41 1/16	1 1/2	F	13	3 1/4	1/4	4	13	3 1/2	1/4	4	137 1/2	.....	.....	33	.....
Ward LaFrance 4A–3 1/2–5	3	1/4	1 3/4	1 3/4	V	8 1/2	1 1/2	18	1 1/2	41 1/2	1 1/2	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	170 1/16	.....	.....	37	.....
Ward LaFrance 5A–5–7	3	1/4	1 1/2	1 3/4	V	9 1/4	1 1/2	18	1 1/2	41 1/2	1 1/2	F	18	4	1/4	4	18	4	1/4	4	170 1/16	.....	.....	37	.....

Detroit Street Railway Company Plans City Wide Bus Service

Operating of an experimental bus by the Street Railway Commission of the City of Detroit has been started as a preliminary to the taking over of the present bus operating company, and the extension of bus service to many other sections of the city. According to plans as outlined, the railway commission is planning to supplement street car service with buses in all parts of the city, covering the same sections but not on the same streets.

The experimental bus is a double-decked Fageol seating 58 persons and similar in type to vehicles now being operated in Los Angeles, Newark, N. J., and other cities. Buses operated by the Detroit Motorbus Co., the present operating company, are Fifth Avenue and Yellow Coach types. The speed range on the Fageol bus is up to 35 miles an hour.

During its try-out by the city the bus will be placed on various streets to test its usefulness in various parts of the city and to gain information necessary to commission in planning the proposed system. Speaking of the city's plans in connection with bus operation, Ross Schram, general manager of the Street Railway Commission, said:

"It is expected that the proposed bus system will greatly relieve the present congested condition of downtown traffic. Undoubtedly many persons who are in the habit of using their automobiles to ride to and from work will patronize the buses, thus reducing the number of passenger cars driven daily into the congested districts.

"For short hauls and mass transportation the trolley car remains unexcelled so far. Where there is a necessity for moving large crowds it is unequaled. But the buses, I believe, will draw largely from a class of potential passengers created by the ever-increasing use of the automobile, in other words from persons who would drive their automobiles to work if it were not for the discomfort incident to the use of the machines in down-town districts.

"The buses will also serve many sections of the city which are now without transportation facilities of any sort or where the facilities are inadequate. Stops will be far enough apart to provide genuine rapid transit without at the same time making it necessary for the bus passenger to walk more than three blocks to a stop."

Ford to Make Heavier Trucks

Presentation of the heavier Ford truck, which has been a subject of discussion in the industry for the last few years, is expected to take place about the first of the year. It is understood that the company completed its experimental and test work and is now getting ready to start production.

The truck will be of 2½-ton capacity, powered by a new engine which the company has developed, and which, though somewhat similar to the engine of the Fordson tractor, is still a distinct type. The presentation of the truck has not progressed to the point where any indication of the price can be ascertained.

Pennsylvania Railroad Doubles Truck Service

The Pennsylvania Railroad is now operating 20 motor truck units, doubling within a few months its truck service. The 20 units involve the use of about 40 motor trucks in replacement of local freight trains which previously were operated to carry less than carload freight. Total mileage on the Pennsylvania System on which daily motor truck service is now in effect is 1412, as compared with 602 miles early last spring.

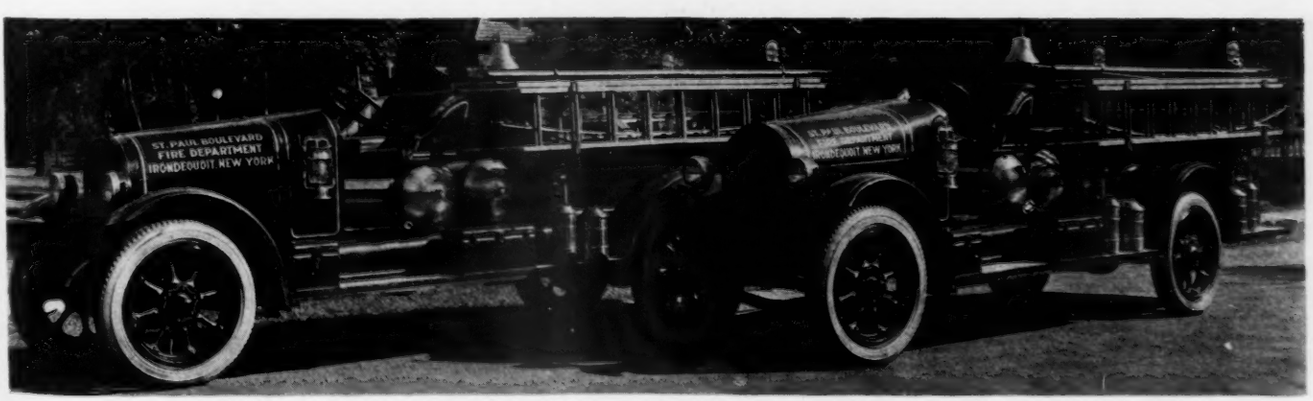
The State of New Jersey is now completely motorized, insofar as the hauling of l. c. l. freight by trucks to replace l. c. l. freight trains on the Pennsylvania System is concerned, according to R. S. Hurd, Special Agent in charge of motor truck operation. New truck units are being planned and put into operation in other divisions just as rapidly as preliminary surveys can be completed, Mr. Hurd says.

New Eight-Wheel Railway Car Powered by 80-H. P. Gasoline Engine

The accompanying illustration shows a new eight-wheel railway car just placed in operation on the Pacific & Idaho and North Railway line running from Weizer to New Meadow, a distance of 90 miles. The car will carry 33 passengers, the seats being placed crossways with an aisle down the center. The car has a baggage room in the rear with a side door, special compartment with toilet, washroom, hot and cold water, etc.

The route over which this car operates is very mountainous. The car will give extra service over the railroad and will stop at all regular train stops. It is equipped with an 80-h.p. 6-cylinder engine and has a speed of sixty miles an hour. A 22-gal. gasoline tank is mounted on the frame, and the car averages twelve miles to the gallon.

Brakes are provided on all eight wheels. The wheels are 24 in. in diameter with brake drum 20 in. in diameter and a 3-in. lining. The car was manufactured in the new plant of the California Transit Company, in Oakland.



Two Selden Pacemaker Speed Trucks in the Service of the St. Paul Boulevard Fire Department of Irondequoit, N. Y.

The fire apparatus consists of a combination double tank chemical engine and hose car.

Replacement Table – Continued

NAME, MODEL AND TONNAGE	ENGINE													BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt				Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horisontal	Length	Width	Length	Width	Length	Width	Type		Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
White 15A–Taxi	3	1/4	1	11/16	V	7 1/4	1	6 1/2	1 1/4	38	1 1/4	F		46	2 1/2	3/16	2	41 1/16	2 1/2	3/16	2	55 3/4	43 1/2	149 1/4	34	8 1/2
White 15–¾	3	1/4	1 1/16	1 11/16	V	7 1/4	1	6 1/2	1 1/4	38	1 1/4	F		46	2 1/2	1/16	2	41 1/16	2 1/2	1/16	2	85 1/2	58	179	34	10 1/2
White 15–45–¾	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	40 5/8	2	F		53 7/8	2 1/2	1/16	2	50 7/8	2 1/2	1/16	2	85 3/8	57 7/8	189	34	10 1/2
White 20–2	3	1/4	1 1/16	1 11/16	V	7 1/4	1	7 1/4	1 1/4	38	1 1/4	F		55 1/2	3 1/2	1/4	2	50 7/8	3 1/2	1/4	2	146	92 1/2	239 1/2	34	9 1/2
White 20–D–2	3	1/4	1 1/16	1 11/16	V	7 1/4	1	7 1/4	1 1/4	38	1 1/4	F		55 1/2	3 1/2	1/4	2	50 7/8	3 1/2	1/4	2	98	70	191 1/2	34	9 1/2
White 20–45–2	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	40 5/8	2	F		11 3/8	4	1/16	4	50 7/8	3 1/2	1/16	2	107 1/2	82	214 1/4	34	9 1/2
White 50A–Bus	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F		11 3/8	4	1/16	4	50 7/8	3 1/2	1/16	2	168	112	274 3/4	74*	10 1/2
White 40–3½	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F		11 3/8	4	1/16	4	25 7/8	5	1/16	4	164	106 1/2	267 1/2	42 1/2	10 3/4
White 40–D–3½	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F		11 3/8	4	1/16	4	25 7/8	5	1/16	4	118	88 1/2	222 1/2	42 1/2	10 3/4
White 45–5	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F		11 3/8	5	1/16	4	25 7/8	5	1/16	4	164	106 1/2	267 1/2	42 1/2	10 3/4
White 45–D–5	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F		11 3/8	5	1/16	4	25 7/8	5	1/16	4	119	88 1/2	222 1/2	42 1/2	10 3/4
Wilcox AA–1	3	1/4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....		47 1/16	2 1/2	3/16	2	33 1/4	2 1/2	3/16	2	96	.....	.....	34	.....
Wilcox B–1½	3	1/4	1 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....		47 1/16	2 1/2	1/16	2	33 1/4	2 1/2	1/16	2	132	.....	.....	33	.....
Wilcox C–2½	3	1/4	1 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....		57 1/2	2 1/2	1/16	2	42 1/2	2 1/2	1/16	2	141	.....	.....	33	.....
Wilcox E–3½	3	1/4	1 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....		57 1/2	2 1/2	1/4	2	42 1/2	2 1/2	1/4	2	156	.....	.....	33	.....
Wilcox F–5	3	1/4	1 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....		69 3/8	3 1/2	1/4	2	52	3 1/2	1/4	2	148 1/2	.....	.....	36	.....
Witt-Will P–2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	31	1 1/4	F		48	3 1/4	1/4	4	48	3 1/4	1/4	4	.....	78	223	32	10
Witt-Will SS–3	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	41	1 1/2	F		52	3 1/2	1/4	4	52	3 1/2	1/4	4	156	108	242	32	10
Witt-Will N–1½	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	31	1 1/4	F		48	3 1/4	1/4	4	48	3 1/4	1/4	4	137	78	226	32	10
Witt-Will S–2½	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	41	1 1/2	F		52	3 1/2	1/4	4	52	3 1/2	1/4	4	137	78	226	32	10
Yellow Cab M22	3	1/4	1	1 1/2	V	8 1/4	2	10 1/8	2	38 1/2	5/8	V		49	2 1/2	1/4	2	45	2 1/2	1/4	2	60	.....	.....	43	.....
Yellow Cab M42–1¼	3	1/4	1	1 1/2	V	8 1/4	2	10 1/8	2	38 1/2	5/8	V		21 3/4	3	1/4	4	11	3	1/4	2	92	.....	.....	32	.....
Yellow Cab Express T1	3	1/4	1	1 1/2	V	9 1/2	2	9 1/2	2	39 1/4	3/4	V		21 3/4	3 1/2	1/4	4	11 1/2	2 1/2	1/16	2	94 7/8	61 1/4	181 3/8	34 1/2	.....

Toronto Dealers Optimistic of Future

Truck and passenger dealers in Toronto, Ont., are more optimistic with regard to sales throughout the Province of Ontario, since the closing of the Canadian National Exposition in that city, than before its opening.

Chas A. Campbell, President of the Toronto Automobile Trade Association, Ltd., expresses the following:

"The general opinions expressed by the public during the show were more optimistic in tone than has been noticeable for the last couple of years, due, apparently, to a conviction in the minds of most people that general conditions look more encouraging than they have during the last period.

"Owing to the strides which the industry has made during the past year, there was more interest shown in mechanical features and developments than has been usual. Such things as four-wheel brakes, balloon tires, special transmissions, etc., were frequently discussed.

Thrall to Represent Roller-Smith in Cuba

The Roller-Smith Co., 233 Broadway, N. Y., announces the appointment of the Thrall Electric Co., Presedente Zayas No. 27 & Esquina A Habana, Havana, Cuba, as its exclusive representatives in Cuba.

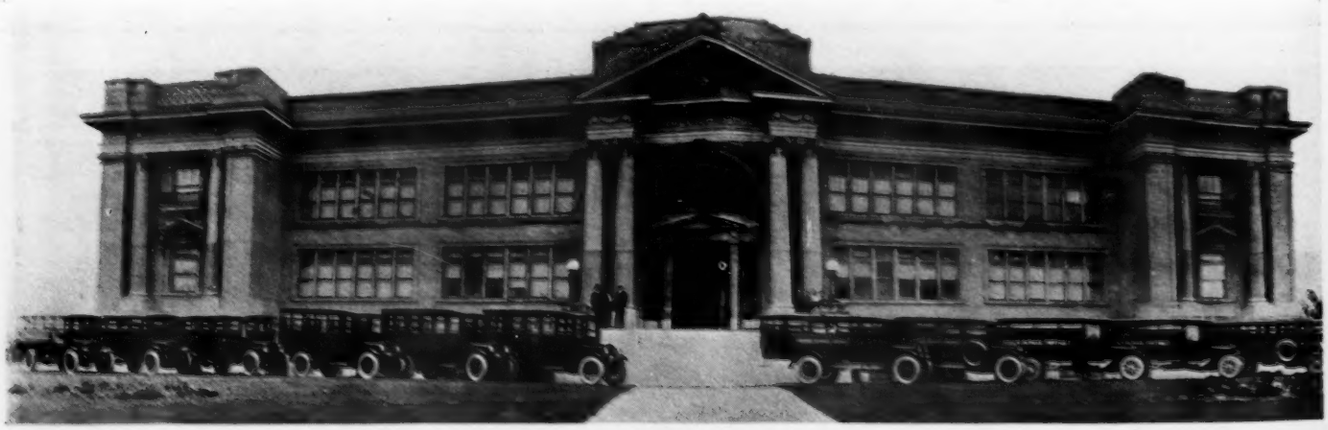
The Thrall Electric Co., primarily a sales and engineering organization, is the successor of Charles H. Thrall Electric Contracting Co., who in turn was the successor of Charles H. Thrall & Co. The parent concern dates back to 1899 and is the pioneer in electrical commercial life in Cuba.

Highway User to Pay Road Costs

Payment by the highway user of all maintenance costs and substantial share of the construction costs with interests was the chief conclusion in the report on "Problems of Highway Finance" submitted to the National Tax Association in its annual meeting recently held in St. Louis. Jacob Miner, professor at the University of Chicago, read the report.

If this report is carried out, Miner held, all justification for charges that motor transportation is being subsidized in its competition with other transportation agencies will be removed. He called attention to the fact while the special taxes on motor vehicles amounted to only 5 per cent of the total highway expenditures in 1914 such taxes promise to be at least 45 per cent of the 1924 costs.

Higher Rural Education. What is Responsible for It?—THE BUS



Motor Buses Made This Beautiful Edifice of Learning Possible

Thirteen bus loads of children are brought to this school, the Jordan High School, located in Utah, where distances are reckoned in many miles, every morning of the school year. Without the bus this school would be impossible. With the bus 420 students are enabled to receive training equal to the best of our large cities. The fleet used are Republic school buses.

Cutting Costs in Truck Operation

IN every industry, cutting costs is the big problem to which executives are giving much time and thought.

Equipment builders are fully awake to the needs of industry and are constantly improving standards and developing new equipment with this one particular object in view.

If you are interested in longer life and lower operating costs for trucks, let our engineers confer with and explain to you how Bethlehem Rolled Steel Truck Wheels can contribute an additional measure of economy and serviceability to the sturdiest trucks.

Bethlehem ROLLED STEEL Truck Wheels are RELIABLE.

They are made from Bethlehem rolled steel I-beams punched and bent to shape and the spokes brought together at the hub in such a manner that the spoke and rim construction insures a secure bond throughout the whole wheel. The result is a high grade, one-piece, all-steel wheel which surpasses in adaptability any other known material for this purpose, because it combines resiliency and lighter weight with the greater mechanical strength of rolled steel.

NEW CATALOG—Send for our new catalog showing improved designs of truck wheels.

WE manufacture and carry in stock Bethlehem Rolled Steel Truck Wheels for 2, 2½, 3½, 5 and 7 ton trucks made for Timken axles and using solid tires. These have the hubs of front and rear wheels equipped with Timken bearing cups. Rear wheels are assembled with Timken brake drums, and front wheels are furnished with hub caps. Wheels are shipped ready to receive tires and be installed on the truck.

Any other hub cores and brake drums can be made to truck makers' specification and assembled with the wheel when desired.

BETHLEHEM STEEL COMPANY, GENERAL OFFICES: BETHLEHEM, PA.

Sales Offices in the following cities:

New York Boston Philadelphia Washington Pittsburgh Detroit St. Louis
Baltimore Atlanta Cleveland Cincinnati Buffalo Chicago San Francisco

BETHLEHEM

Rolled Steel Truck Wheels

Maintenance and Operation

These Topics Featured Discussions at the S. A. E. Transportation Meeting

(*Continued from page 15*)

in this regard is to secure a sort of composite picture of the needs of various purchasers and then build the bus accordingly.

Speaking from the large purchaser's and operator's standpoint, however, F. D. Howell, vice-president of the Motor Transit Co. of California, said: "The manufacturer must furnish that which can be used in service, or, if the need is so special that this is not feasible, he must be willing to sell only those parts that can be used, so that the purchaser will not be compelled to take off new wheels, springs or other items and replace them with those he needs, and in the meantime seek a market for the parts removed and accept a price much below their actual value."

If the transportation industry cannot get this service, said Mr. Howell, it will have to develop its own assembly plants and purchase parts from various manufacturers. "Some stage systems on the Pacific coast are so close to this now that it would not take much additional investment to give them complete assembling plants, and it will depend on the manufacturers whether these assembly plants will grow. or whether the manufacturers themselves will meet passenger service, irrespective of whether the product can be used successfully."

Future Motorbus Engineering Problems

In his paper on the "Future Problems of Motorbus Engineering," A. F. Masury, brought out the fact that the average life of a bus was from four to five years. Better riding quality, he stated, has renewed the impetus of the six wheel bus, though the four wheelers fill definite requirements. The question of spring suspension, driving on two or four wheels, and braking on front, four rear wheels, and driveshaft separately or collectively is still unanswered. Bodies need greater flexibility. Extracts of his paper follow:

One of the most important problems before the automotive engineer today is how to increase materially the useful life of a motor bus so that its depreciation can be reduced substantially. The average daily mileage covered by motor buses is 208 miles, representing a continuous operation of 16 hr. per day at an average speed of 13 m.p.h. Making a due allowance of 30 days for yearly overhaul and maintenance, the mileage covered per unit is approximately 70,000 miles per year. Now if we assume that 300,000 to 350,000 miles are sufficient to send a motorbus to the scrap heap, and many of them arrived there before reaching this figure, we are faced with a useful motorbus life of 4 to 5 years.

This rather short period of usefulness is an important item directly affecting operating costs.

Motorbus engineering has not yet reached the point where stabilized designs can be standardized and improved rather than changed. This is undoubtedly due to exacting demands for maximum comfort, safety and speed, together with economical operation demanded by operators.

This natural tendency toward better riding quality has renewed the impetus of the six-wheel bus. It does not mean, however, that the present four-wheel buses, having seating capacities of 25 to 30 passengers, will be displaced. Such will never be the case, as there is a very definite need and place for this type of motor vehicle and always will be. To supplant it with a large carrier would be against common sense economics.

From all appearances six and eight-wheel buses are proving their economic worth and filling specific needs. They must be essentially large carriers.

Use of two rear axles permits smaller axle units, thus increasing ground clearance and decreasing overall height and makes for lighter individual unsprung weight.

Tractive Effort and Axles

Should the power be transmitted through the gears of the first axle to the second or should it be equally divided between each axle by a power differential? This latter unquestionably is a more expensive construction and perhaps limited to the larger vehicles, but it possesses advantages as in the case of different tire diameters on account of wear or other causes. By differentiating the power. driving members can be made lighter. A further improvement might include a power differential lock to prevent slipping.

To drive but one axle is commendable from the point of view of simplicity, but it reduces the tractive effort available. In conjunction with a flexible spring layout it is likely that the driving wheels occasionally will leave the road and cause engine racing, especially when rolling over what is termed "washboard" roads.

In large sizes and for economy in production we may be forced to build the frame in two sections. If so, where should it be split? Loading and bending moment diagrams seem to indicate that the splitting line should be just ahead of the forward rear axle.

Should the frame be built to be a flexible or provide the utmost rigidity possible? In the first place complete rigidity is mythical, and it is a case where we must strike a compromise between relative rigidity and excessive weight.

Body and frame design are directly linked, for if we are going to have a flexible frame we must build also a flexible body. On the other hand, if we choose a relatively stiff frame, a super-rigid body will be necessary to reinforce the complete assembly. Perhaps a combination of the two is the solution! Duraluminum as a body material might be used advantageously, combining strength and lightness.

Looking at it from another angle, should we have a frame? We seem to have been guided in the past by motor truck practice. In this case a frame is necessary on account of the variety of bodies suited for different kinds of work, but in the case of the motorbus we have to deal almost exclusively with closed bodies of box-like structures. Why not build the assembly along lines somewhat similar to those adopted by Lancia with their smaller passenger cars? Let us go even further, build the body in sections joined together, thus simplifying service problems in case of accidents.

We see two distinct ways opened before us: The flexible type of bus chassis and body and the super-rigid assembly. Should the vehicle be designed as a simple beam or on the trussed bridge principle? In answering this question let us not forget the appearance of the finished product; its importance often has been underestimated.

Among the many problems of bus body design that remain to be solved satisfactorily are those of ventilation, heating, freedom from road dust, preventive methods needed to prevent the exhaust gases as well as engine compartment vapors from reaching the body and the elimination of noise in general.

R. E. Fielder, chief engineer of the Fifth Ave. Coach Co., gave a most comprehensive review of the methods employed to keep track of the hundreds of buses operated by this company. Practically all of the forms used were illustrated by lantern slides, showing the scope and detailed checking up that is required to prevent the many leaks which would otherwise occur in a big transportation system of this character.

When Does a Truck Become Obsolete?

This question was the subject discussed at the first evening session when the Metropolitan Section played host to those attending the big meeting. Francis W. Davis, consulting engineer, brought out the following points in his speech:

1. Ultimate life of motor trucks still obscure.
2. Obsolescence not yet an important factor in motor truck life.
3. Depreciation should be calculated independent of economic life.
4. Improvements in design and interchangeability of units will prolong the usefulness of trucks.
5. Proper supervision and maintenance will lengthen truck life.
6. Improper maintenance and inability to secure replacement parts coupled with poor design chief factors bearing on time to retire trucks.
7. No formulas can be given for time to retire trucks; each case must be considered on its merits. Problem requires a broad knowledge of engineering and perfect common sense.

The early makes of motor trucks on the road today, stated Mr. Davis, "which have received proper service and maintenance and are not orphan trucks in any sense, cannot be termed obsolete. They cannot perform alongside the modern truck in regard to ability to performance, nor can they show gasoline economy. However, they are still able to perform a service in the work for which they are fitted and are not obsolete. This delegat-

Bring on the "*Balloons*"

CARS equipped with balloon tires steer harder—unless they are equipped with Ross Cam and Lever Steering Gears. And *then*—why, you'd never know the difference. Ross Cam and Lever Steering Gears render many valuable services. This is only one of them. *Write for the facts.*

ROSS GEAR AND TOOL COMPANY, *760 Heath Street,* Lafayette, Indiana

ROSS

CAM *and* LEVER STEERING GEARS

EASIER STEERING LESS ROAD SHOCK

ing of the early trucks to services for which they are fitted is a very important one. Otherwise, they must be considered obsolete at this time, as they do not compare in performance ability with the modern trucks. This matter of obsolescence is so far outshadowed by the other factors discussed in this paper that it becomes of relatively small importance. Age in itself has very little to do with the life of motor trucks. A motor truck can only be considered at the end of its economic life when it fails to render proper service.

"With the aging of motor trucks, bringing about the failure of non-wearing parts, the increased difficulty in obtaining spare parts, and the decrease in productiveness due to forced repairs, the cost of operation increases, and the productiveness of the vehicle decreases. This fluctuation should not become evident during the early life, but will mount up steadily and rapidly as the vehicle approaches the end of its economic life."

Trailers and Semi-Trailers

"Good trucks and tractor-trucks are capable of operating, under fair conditions," according to H. W. Howard in his paper on "Developments in Highway Transportation," almost continuously for from 1,000 to 3,000 miles. By 'almost continuously' we mean 20 hrs. a day, 6 days a week, 280 days a year, and 'operating' we mean with loads approximating capacity.

"Time studies covering a large number of installations throughout the country show that the motor truck's average performance with load is usually 4 hrs. or less a day. This is a truck usefulness of 20 per cent of its continuous performance ability. Certainly this is not efficient transportation. There is too much time lost."

Mr. Howard in his speech then showed how trailers under certain of these conditions could reduce hauling costs.

"Trailers increase the hauling capacity of motor trucks:

1. By utilizing the reserve or excess power of the engine.
2. By saving standard time.

"At this point the question arises whether to use semi-trailers or four-wheel trailers. Four-wheel trailers are harder to handle at the loading dock than semi-trailers. They are harder to back and much more room is required in which to maneuver them.

"The four-wheel trailer is effective in inter-city work. The truck and trailers can be loaded simultaneously at different points, and then assembled into one road train and carried as such to its destination. Here again, if necessary, the loads can be deposited at different unloading points."

Mr. Howard then showed how the semi-trailer is fitted for city work. "The length of the body, or the wheelbase of the semi-trailer, does not affect the width of street required in which to turn the unit just so long as the semi-trailer body is 2 ft. short of dimension, i. e., the width of the street.

"In other words, the space required to turn the motor truck tractor is the limiting factor rather than the length of the body. Using a 10 or 15-ton tractor-truck, a 24-ft. body on a semi-trailer would be turned in a 26-ft. street, while you would have a difficult time trying to turn a 5-ton truck equipped with even a 16-ft. body."

How to Operate the Flat-Rate System

(*Continued from page 18*)

week or $1 per hour, the income when applied to the 48 hours in the week. The cost per hour per man in the three-man shop on the 36 hourly basis is $1.252. As shown above, the hourly income is $1, so that a loss of $0.252 per man is the result. For a total of 144 hours, productive, the loss would be 144 x $0.252, which equals $36.28. If the boss produces 24 hours, earns $30 gross or $5 net, there would still be a loss of $31.28. If he is completely non-productive the loss would be $61.28.

Idle Time Reduces Profits

With three men working 48 hours, the 17 cent margin would be a net profit of 13.5 per cent. The boss's net profit on his 24 hours would be 16.5 per cent. But only in the busy season do the productive hours function and even then there is idle time which was not figured in the overhead, and if it had been it would have wiped out the profit quoted. If the shop is conducted on the basis that boss draws no salary, then his productive time will be net, but an overhead must be charged to his hourly rate which will reduce somewhat the rate of the other men. For example, if the overhead is $1.676 the hour it should be divided by four with three other men, but the overhead will not be $1.676 the hour, for remember, this figure took into consideration the $25 a week salary paid the boss. Consequently with his drawing no salary he accepts profits—if any, in lieu of same.

The actual definite labor cost per hour and minute is necessary when ascertaining what the cost of a given operation should be, plus the profit. The cost is the yard-stick of measurement in service, whether it be operated on the hourly basis, flat-rate or piece-work. Until these factors are known the application of flat-rate or any other rate will not be practical or profitable.

Highway Officials Standardize on Steel

Standardization of steel reinforcing bars, such as are used in highway construction, buildings, etc., was definitely agreed upon by representatives of highway construction engineers, steel manufacturers and building contractors. The elimination of all but eleven bar sizes was agreed to, these being: .049, .110, .196, .250, .307, .442, .602, .785, 1.00, 1.266, and 1.563 inch sizes.

Representing the highway construction interests at the conference were E. F. Kelley, of the American Association of State Highway Officials; O. L. Grover of the U. S. Bureau of Public Roads, and A. W. Slater, of the Bureau of Standards. It was agreed that the change for the producers should be effective on January 1, and for the distributors on March 1. More than 80 per cent of the steel manufacturers were represented at the meeting.

Rest for Baggage Placed on Floor in Front of Ticket Counter of Bus Depot

A feature of a new motor bus station in San Francisco is the rest for baggage placed on the floor in front of the ticket counter, by means of which passengers may support their baggage while purchasing tickets. Another feature is the fact that there are five ticket windows enabling a large number of passengers to purchase tickets at one time.

ACME
THE TRUCK OF PROVED UNITS

Trade-Mark Registered U. S. and other countries

We want to go into business with you

For the dealer who wants to make 1925 the biggest profit year of all, the Acme Franchise *rings twelve*. It offers him the opportunity to handle a nationally famous truck under extraordinary profit possibilities. If you are the man, we want to go into business with you. We will spend money to help you put Acme across in smashing style in your territory. The Acme Franchise is perpetual; and you will find us eager to give you the kind of co-operation you have always wanted to get. Don't let this remarkable opportunity for your bigger profits get by, but write us at once for further details.

THE TRUCK

Acme standardization on proved units is your protection in selling as it is the owner's protection in buying. Nothing but the best goes into each of the nine Acme models. Acme's reputation for performance has not been made in a day or a year—but is on the job helping you sell trucks every day, every year. The Acme line offers a just-right truck for every load and industry; that is why the man who holds the Acme Franchise automatically opens a service station for every business hauling need.

Write us today, and we will send you those details post-haste.

THE ACME MOTOR TRUCK COMPANY

536 Mitchell Street **CADILLAC, MICHIGAN**

ACME

"Acme Covers the Whole Trucking Field With the Balanced Acme Line"

Moreland Six-Wheel Double-Deck Bus

THE Moreland Co., Los Angeles Cal., recently delivered the first contingent of its new double deck, six-wheelers to the Los Angeles Railroad Co. The company claims this vehicle to be the first six-wheel, double-decked so far placed on the market.

The Moreland six-wheel construction for heavy-duty use is of the Goodyear type, where each axle is attached to a strong semi-elliptic spring hinged in the center. In this type of suspension, each wheel of the four rear wheels may be raised or lowered to a very high degree without raising the body. Irrespective of the spring flexure, the center of the spring, which is attached to the frame, moves up only one-half the amount of the ordinary construction. Hence the chassis will be raised to only one-half of the height under similar road conditions.

Construction advantages claimed are briefly: Absorption of large inequalities and obstructions on the road without discomfort to the passengers, better traction on account of the four rear wheels, and braking action on all six wheels by a combination air-hydraulic system.

The braking system, which is a combination of the Lockheed hydraulic and Westinghouse air systems functions as follows: The air compressor driven by the engine leads air to two air pressure tanks. The output from the tanks is controlled by a control valve, which is operated by a foot pedal. From the control valve the air is lead to two large Westinghouse diaphragms, the effective area of which is ten times that of the hydraulic plunger used in the Lockheed system. By these means a pressure of 75 lb. in the air system gives a total effective pressure of about 1200 lb. at each brake band by the Lockheed system which is the final step in the system.

Complete View of the Moreland Six-Wheel Double Deck Bus. The Sides Are of Plymetl and the Roof of Haskelite

Eaton Offers New Rear Axle for Buses

The Eaton Axle & Spring Co. is now in production on a double reduction, full floating type rear axle for bus service. The first reduction is through spiral bevel gears and the second through herringbone type gears. The load carrying member is built up of a heat-treated, cast steel center housing and alloy steel tubes. The overall depth of the axle is 13½ in. and the clearance, with 36-in. tires, is 11¼ in. Hotchkiss type drive may be used with this axle but provision is also made for a torque arm.

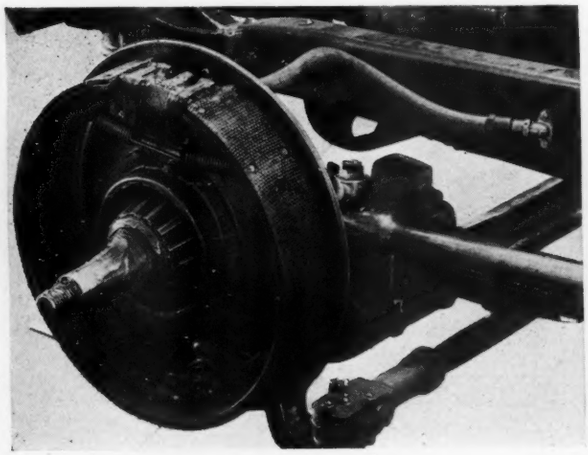
Load capacity of the axle on the spring pads is 12,000 lb. maximum. The maximum torque capacity is 22,000 in. lb. The axle is suitable for 36 x 6 in. tires or dual 34 x 7 in. when using internal brakes. Provision is made for an air cylinder to operate the brakes. The weight of the axle complete, including hubs and drums, is 900 lb. Reduction ratios of 4½ up to 7½ to 1 may be had. The hubs are made to accommodate demountable disk wheels.

Heil Mechanical Hoist

The Heil Co., Milwaukee, Wis., shortly will furnish the Titan Mechanical Hoist for mounting on any make or model truck.

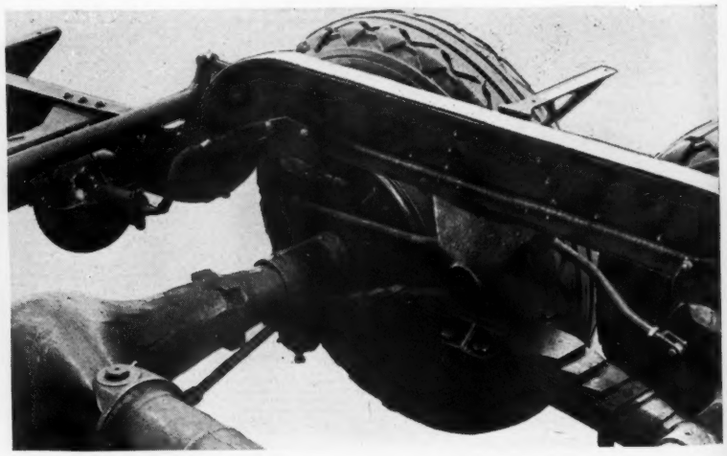
The hoist will be known as the Heil Mechanical Hoist. With the addition of this hoist the Heil Co. will have a most complete line of dumping equipment. The line includes Hand Hoists, Gravity Bodies and "Hydro" Hoists in five sizes, for all trucks.

The feature of the new Heil Hoist will be found in its high dumping angle, lightness of weight and design of mechanism. The hoist weighs approximately 400 lbs.



Front Left Wheel, Showing the Braking Assembly

Note the arrangement; the braking action is the conventional internal expanding principle, differing only in that the pressure is exerted by hydraulic means instead of foot power. The pipe line feeding to the wheel is shown.



View of the Front Right Driving Wheel

Note the air diaphragms and the piping of the hydraulic system. The spring suspension feature showing how the axle unit is attached to the end of the spring whose center is pivoted to the chassis is also disclosed. Also note the equalizer which equalizes the brakes on each side of the chassis.

BUILDING TODAY FOR TOMORROW'S REQUIREMENTS

Beginning in 1902, Garford is today among the seven companies manufacturing 78% of the bona-fide trucks

GARFORD'S REPUTATION

Helps Dealers Build Business

Every dealer knows that it is easier to sell a truck of proved merit than an unknown make—Less explanation is required because the buyer depends upon reputation.

Garford's reputation of 22 years experience manufacturing dependable automotive vehicles gives the dealer a weapon that stops much useless bickering on the part of buyers.

The buyer knows that Garford is building for tomorrow, next year and the year after—and this helps make up his mind.

But

Garford does not believe that dealers should have only that—and nothing more.

The engineering staff is constantly making improvements in design and the sales department is always developing new ways to make sales come easier for dealers.

Garford's latest assistance for dealers is advertising in the Saturday Evening Post; an intensive campaign of direct mail to consumers and a merchandising plan pronounced by experts the strongest selling weapon in the truck and coach field.

You will want full details, of course—Write

GARFORD

Coaches 15 to 35 passengers—Trucks 1 to 7½ Tons

THE GARFORD MOTOR TRUCK CO., LIMA, OHIO

Atterbury Enlarges Its Manufacturing Site

J. R. Spraker, vice-president and general manager of the Atterbury Motor Car Co., Buffalo, N. Y., just announced the purchase of two hundred additional feet of industrial frontage. This new property, covering approximately three acres, adjoins the rear of the present Atterbury plant and Service Division.

"The acquisition of this extra acreage is to take care of our plans for expansion," commented Mr. Spraker. "It is dollars and cents evidence of our faith in the continued growth of motor transport in modern business.

"Since the early days of the truck industry back in 1903, when this company was founded, the use of motor trucks has played an increasingly important role in the nation's business.

"In the purchase of this large new addition to our property we are expressing our confidence in not only the motor truck business but the basic growth of general business.

"We find too that the recent introduction of the new Atterbury Highway Express, together with the new 5 to 7 ton Atterbury Highway King are having a very direct effect in stimulating our volume of sales. Both of these new machines are reaching new fields in commercial haulage."

Autocar Interpretation of Legal Lights

The Autocar Co., Ardmore, Pa., submitted its interpretation of the headlight law to the Highway Department and were in receipt of a letter of approval. This interpretation which follows will clear up any confusing or conflicting opinions as to the correct meaning of the law.

The gas headlights shall have a clear plain front glass and a ⅝ foot burner.

Electric headlights shall be equipped with one of the approved types of lenses. The Holophane lens used on Autocars is approved by the Highway Department.

The lights must be so adjusted as not to glare or dazzle in the eyes of an approaching pedestrian or motorist. In order to accomplish this it is advisable to adjust both gas and electric headlights so that the upper outline of the beam is not more than 42 in. above the level surface of the road at a point 75 ft. ahead of the motor vehicle.

Parker Truck Files Bankruptcy Petition

The Parker Motor Truck Co., which about eight years ago took over the plant of the Former Stegeman Motor Truck Co., a pioneer in the Northwestern truck industry, has filed a voluntary petition in bankruptcy. Schedules admit liabilities of $364,756 and claim assets of $244,705. Frank H. Parker, president and one of the chief stockholders, died within the past year.

In recent months production has been limited by the lack of a satisfactory market and the inadequacy of working capital. Unsecured claims amount to $290,414. Assets include stock on hand, $100,000; bills and notes receivable, $89,271; machinery, $30,000; open accounts, $20,435, and patents, drawings, blue prints, etc., $5,000.

Bethlehem to Increase Production Program

According to a recent announcement the Bethlehem Motors Corp., New York, expects to go into a greatly increased production program and plans are under way for developing an enlarged sales campaign throughout the country and in export fields.

The new Bethlehem Corp., now two years old, has already announced its models for 1925, which are stated to possess many new refinements and salient features of design and construction, such as the company's own make of engine special designed frame, patented magazine oiling system and spiral bevel dual reduction rear axles.

Included in the line for 1925 are: The Airline, one-ton; Fast Express, two-ton; Sturdy, 2½-ton; Heavy-Duty, 3½-ton; and Contractor's Special, with seven speed transmission and heavy-duty units. The last named model is larger in capacity than any Bethlehem built heretofore.

Day-Elder Changes Quarters

The Day-Elder Motors Corporation recently moved into its new quarters, Coit Street and Paine Avenue, Newark, N. J. The new home is located in the same section of Newark, being only a half mile from the old address. The building is new, modern in every respect with offices on the second floor.

U. S. Department of Commerce Production Figures
(Number of Machines)

	Passenger Cars			Trucks		
	1922	1923	1924	1922	1923	1924
January	81,696	223,822	*287,353	9,596	19,732	28,922
February	109,171	254,782	*336,374	13,360	22,173	31,151
March	152,962	319,789	*348,356	20,036	35,284	*34,109
April	197,224	344,661	*337,045	22,665	35,085	*36,154
May	232,462	350,460	279,439	24,120	43,730	33,374
June	263,053	*337,442	217,927	26,354	41,173	27,863
July	225,103	*297,413	237,652	22,083	30,692	25,224
August	249,498	*314,431	251,631	24,711	30,872	27,484
September	187,711	*288,964	.....	19,495	28,578	.....
October	217,582	*335,041	.....	21,824	30,139	.....
November	215,362	*284,939	.....	21,967	28,073	.....
December	208,016	*275,472	.....	20,394	27,762	.....

* Revised.

Republic Adopts New Axle for Models 11X and 19

The Eaton, enclosed-in-oil, rear axle is to be standard equipment on Models 11X and 19, according to the latest announcement of the Republic Motor Truck Co., Alma, Mich. The design is such that all the heavy stresses placed upon it can be readily absorbed. For example, extra large bearings are used throughout, pinion shaft bearing cups are pressed into an integral container, etc.

Other improvements of the axle are: Continuous bath of oil in which the gears operate in a hermatically sealed housing; improved mounting of the internal gear; permanent assembly of the hub on the axle, facilitating removal and replacement of the wheel without interference to the axle assembly; larger jack shaft bearings; wider and heavier internal gear and pinion; internal brakes of larger diameter and constructed on the solid shoe principle; heavy bevel gear solidly bolted onto differential; one-piece differential housing; integral pinion and shaft; and positive bearing adjustments on both differential and pinion shaft.

Splitdorf Rumors Unfounded

The following is from the Vice Chancellor's decision which was rendered in favor of the Splitdorf Electrical Co., Newark, N. J.

"The State can take away the life of a corporation but will not do so unless it can be proven that the firm is insolvent or that the creditors are suffering from mismanagement.

"This company is not insolvent in any bankruptcy sense. It is paying all its bills and doing a regular business. It has been losing money. Yes, but that happens to many firms and it seems that the Splitdorf concern lost out mainly through an excess of patriotism during the war, when instead of reaping profits they chipped in and helped the Government. No potential insolvency appears, for their business prospects are good and they have the strong support of both their stockholders and the banks."

Borg & Beck Enters New Fields

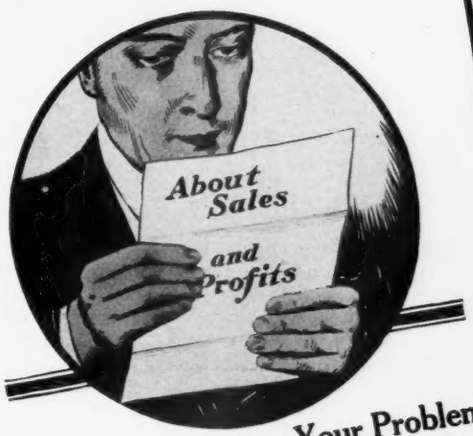
Signalling an expansion of considerable importance which will take the activities of the organization into fields outside the automotive industry, announcement is made that the Borg & Beck Co. has taken over the A. O. Norton, Inc., with a plant at Boston and A. O. Norton, Ltd., with a plant at Coaticook, Canada.

The Norton factories manufacture ball-bearing and other types of jacks for use in railroad and bridge work and various forms of heavy construction. It is reported that approximately $1,000,000 was involved in the purchases.

Both plants already have been taken over by Borg & Beck, while all directors of the Chicago company have been elected to the Norton board, Harry Norton being retained as a director and president in the two companies absorbed.

Dealers!

Facts every automobile dealer must face



And the Answer to Your Problem

if you handle cars or trucks you want this book

free!

Shows you how to increase your business!

This is the most unusual piece of trade literature ever published. Points the way to BIGGER PROFITS and presents real facts about trade conditions that every dealer should know.

SEND FOR YOUR COPY TODAY!

Ruggles Motor Truck Company

SAGINAW MICHIGAN

New Yellow Sleeve Valve Six for Buses

THE Yellow Sleeve Valve Engine Works, Inc., East Moline, Ill., has brought out a new six-cylinder engine, claimed to provide among other features rapid acceleration, high speed, fuel economy and low maintenance costs. The engine is the result of the joint activity and experience of the Chicago Motor Coach Co., the Yellow Coach Mfg. Co., and the Yellow Sleeve Valve Engine Works. It was designed originally to meet the requirements of heavy motor coaches.

In the designing of the engine first cost has not been permitted to interfere, for it was considered justifiable if appreciable improvement in performance or reduction in operating costs was secured. The use of a seven-bearing crankshaft, liberal sections in the crankcase and ball bearings on the pump shaft, for example, are pointed out as being three items bearing out this policy.

A bore and stroke of 4½ x 5½, respectively, provides a maximum horsepower of 108 at 2200 r.p.m. The crankcase, aluminum, is well ribbed and otherwise designed for stiff structure. The construction and assembly of the oil pan facilitates ready access to rods and pistons. Liberal-sized bearings, and, of course, the seven-bearing point feature of the crankshaft makes for low bearing stress, reduction of vibration and slow wear.

Piston Features

Pistons are aluminum with solid skirt and fitted with three rings in the upper lands. The lower ring groove is drilled for the return of surplus oil through the inside of the piston. Another interesting feature of the piston is the extension of the wall above the ring grooves with a consequent deepened cup in the piston head. Thus when the piston is at the top of the stroke there is practically no exposure of the sleeve wall, the initial combustion chamber being almost entirely within the piston and cylinder. This, of course, protects the oil film during the early and maximum temperature period.

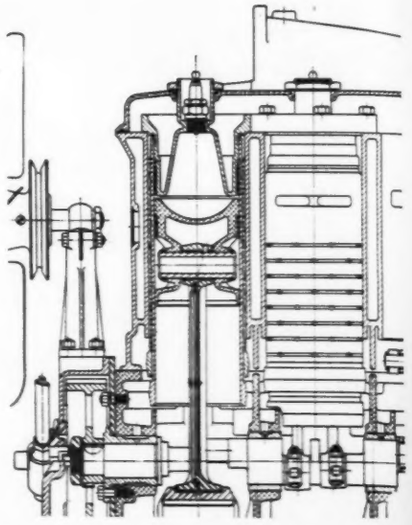
Cylinders are cast in a block of six with integral water jacket. The cylinder heads are individual. The sleeves are of hard iron, the inner sleeves, especially, are of hard alloy.

A swan-type intake manifold is used with rectangular section and embodies an integral heater unit at the junction of the three branches. The carburetor is a large diametered Zenith. An air cleaner is provided from which the air passes through a regulating valve which determines the proportion of incoming air between the unheated passage to the carburetor and the hot-air stove. A centrifugally operated governor controls the speed. On the exhaust side just back of the chain case is placed a centrifugal water pump. An extension of the pump shaft also drives the generator. Both of the last named units are supported by liberal-sized annular bearings.

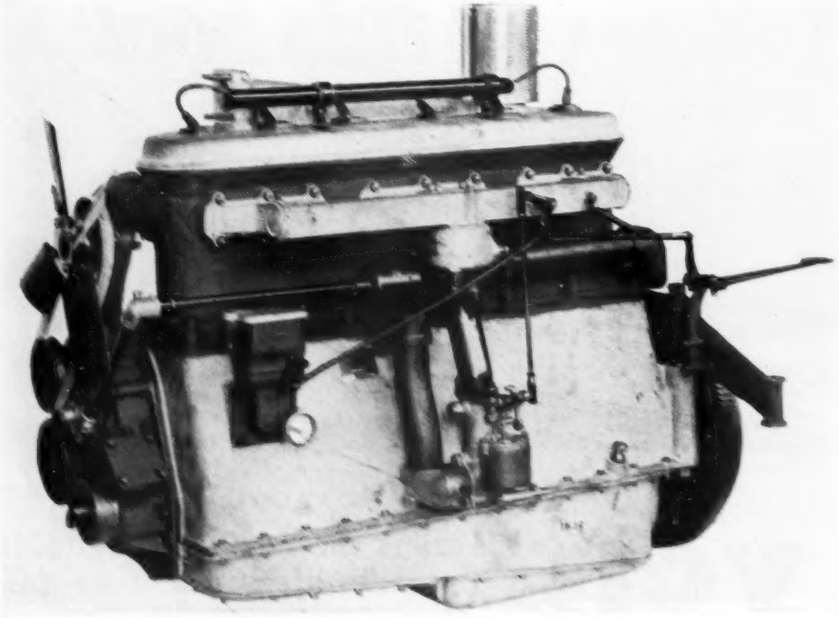
The electric system includes a North East generator. The distributor is of the automatic type.

The built-in air pump with its single 2 x 1⅝-in. cylinder is capable of supplying air for the brakes.

Oil pressure of the lubricating system, which is force feed to the main bearings and splash to the eccentric bearings, pistons, sleeves and rods, is controlled by a spring loaded by-pass in the oil filler housing. The tension of the spring and consequently the oil pressure is increased

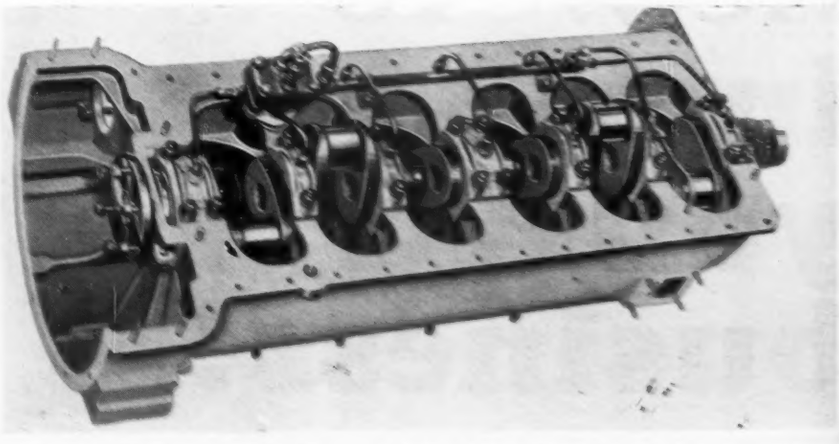


Part Cross Section of the New Yellow Sleeve Valve Engine



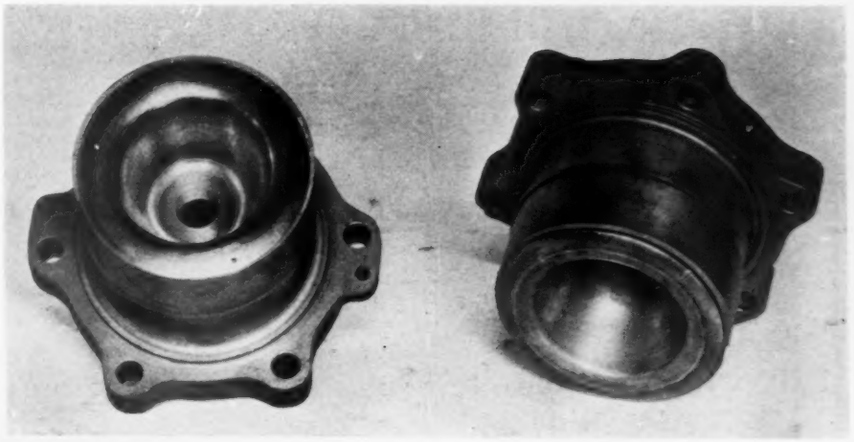
Intake Side, Showing Disposition of Parts

Note the provision for conveying intake air from cleaner, Swan manifold, oil pressure regulator interconnected with throttle, and air pump intake connected with cleaner



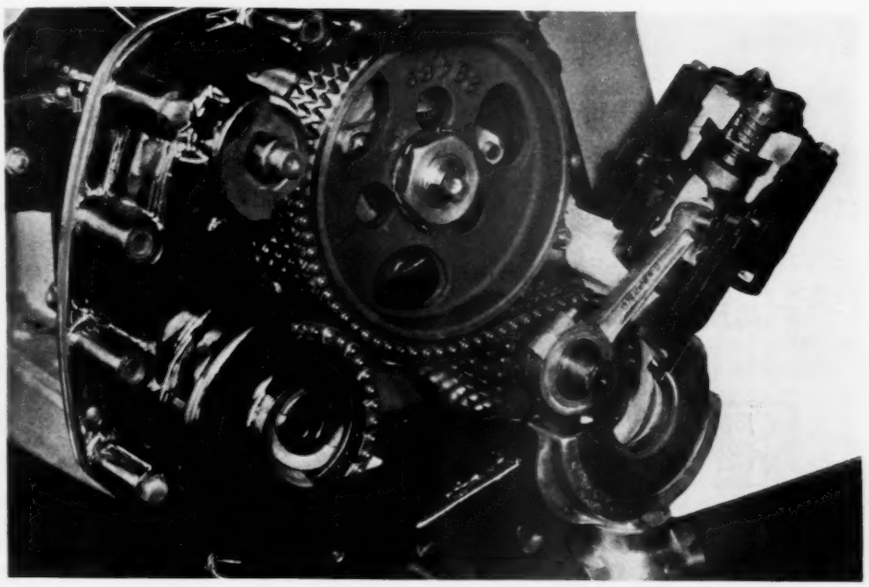
View of the Seven-Bearing Bottom of Crankcase, Showing the Seven Bearings and Ribbed Bell Housing

as a function of the throttle opening rather than as a function of engine speed. Surplus oil is led through a tube to the chain case and takes care of the Link-Belt chains, air pump and auxiliary drive bearings.



Right: Cylinder Heads. They Are Held by Six Studs and the Combustion Chambers Are Finished All Over.

Below: Showing the Built-in Water-Cooled Air Pump and Arrangement of the Timing and Accessory Drive Chain.



Ferodo Moves in New Home

Ferodo and Asbestos, Inc., formerly located in Port Chester, N. Y., recently moved into its new plant in New Brunswick, N. J.

This company is commencing production on the well-known Ferodo Friction Linings, which are standard equipment on the majority of motor vehicles manufactured abroad. In addition to this the company is also identified in the Asbestos Textile Packing fields.

Auto-Hone Changes Administration

William F. Emerson and James Chalmers, Jr., purchased the entire interests of L. A. Hallstead and George D. Armstrong in the Auto-Hone Co., Inc., Buffalo, N. Y., and in the Ha Lee Tool Company. The new owners intend to continue the business, but along more progressive and co-operative lines.

The deliveries of General Motors cars by dealers to ultimate consumers in August totaled 54,149 cars and trucks, compared with 55,832 in the same month a year ago; and further with 60,275 in July this year.

From January 1 to the end of August 494,014 General Motors cars and trucks were delivered by dealers to ultimate users, compared with 528,026 in the same period last year, a decrease of 6.6 per cent.

Selden Pacemaker 14-Passenger Bus

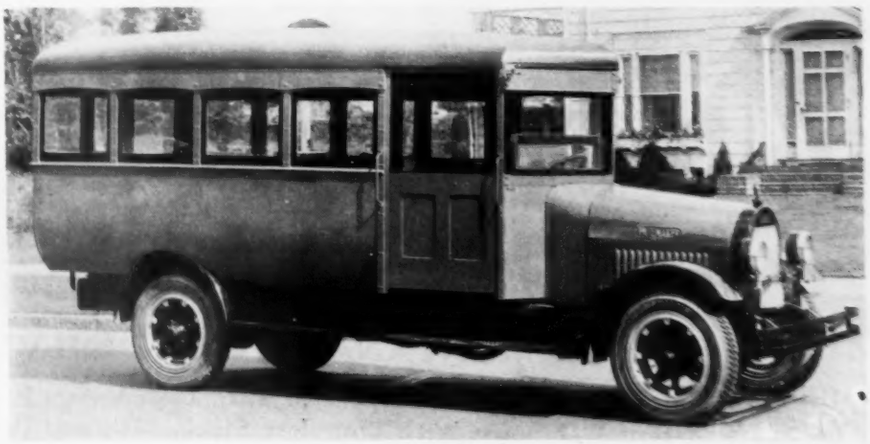
THE Selden Truck Corp., Rochester, N. Y., recently announced a 14-passenger bus body for its Pacemaker chassis, which was lately described in these columns. This body built along the lines of latest practice incorporates many worthy features of construction.

The floor is of cross plank construction and is built unusually low. Roof structure forms a strong arch unit. Body panels consist of 20-gage steel sheets.

Three-ply Haskelite, 5/16 in. thick, covered with heavy black deck material is used.

The windows are of the wood sash type, rubber bound and securely stopped into the sashes. Entrance is through a front door controlled by an easily operated opening device. An emergency exit is provided through a swinging rear sash on the left side. The seats designed for hard bus service, but withal comfortable, all face front except the seats over the wheel housings which face center.

Exterior and interior are attractively finished. The standard equipment includes complete lighting, heating, ventilating and signal systems, exterior running lights, weather-proof windshields, grab handles, etc. The weight with equipment is approximately 1400 lb.



New Selden 14-Passenger Pacemaker Bus

91 in one New York Fleet

Heil Trailer Dump

Here's a way to keep heavy loads within your state laws. Heil Hydro Hoists make wonderful semi-trailer installations. No cables, pressure piping, pulleys, rollers and the like. The simplicity of the Heil Hoist makes it the best for trailer or truck. Write for more information today.

HEIL Dump Bodies and Hoists Make Satisfied Customers

THE three dump trucks above are part of a Heil-equipped fleet installation of 91 jobs for the New York State Highway Department. The trucks are now on highway work and letters from N. Y. Division Headquarters tell how satisfactorily the Heil Hoists and Bodies stand up in service. "They are easy to install," says A. T. Van Ingen, Engineer, New York.

Dealers will find no difficulty in securing repeat order business after the first sale has been made. One Heil Hoist sells another. That's the one big feature of a Heil Hoist—consistent service. It is the simplest and most compact hoist—no trouble or delay; keeps the truck on the job all the time. Heil Hoists for 1½ to 7½ ton trucks. Bodies built to suit the work. Reasonable prices on quality equipment.

Write Today for Body Catalog 140. It Will Help You Sell Trucks

THE HEIL CO.

1143 MONTANA AVE. MILWAUKEE, WIS.

One of Our Twenty-five Distributors is Near You

Eastern Warehouse With Complete Stock, 26th and Parrish Sts., Philadelphia

Quality TANKS BODIES & HOISTS "Made by Heil"

Quality TANKS BODIES & HOISTS "Made by Heil"

THE COMMERCIAL CAR JOURNAL

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The other end of the speed rainbow!

It may seem like pretty good business—squeezing an extra trip per day by clipping the schedule. Certainly you'll collect more fares, and you may even fool yourself into believing you are making more profit. *But what of the buses?*

What of the wear and tear, repairs and replacements? You know every mile an hour above the safety speed limit doubles and redoubles the sledge hammer blows of road shock, and the tearing, racking force of vibration. No engine and no bus chassis, no matter how well built, can withstand such treatment long. And you soon see your imaginary profits fading away because of rapid depreciation and excessive repair bills.

Pierce Governors (by automatically regulating the engine speed) protect your investment, cut down running expenses and increase bus life. That's why more than 150 manufacturers of motors, buses, trucks and other automotive vehicles have adopted Pierce Governors as standard equipment.

You'll be interested in our booklet that tells the story in facts and figures. Ask for No. 34

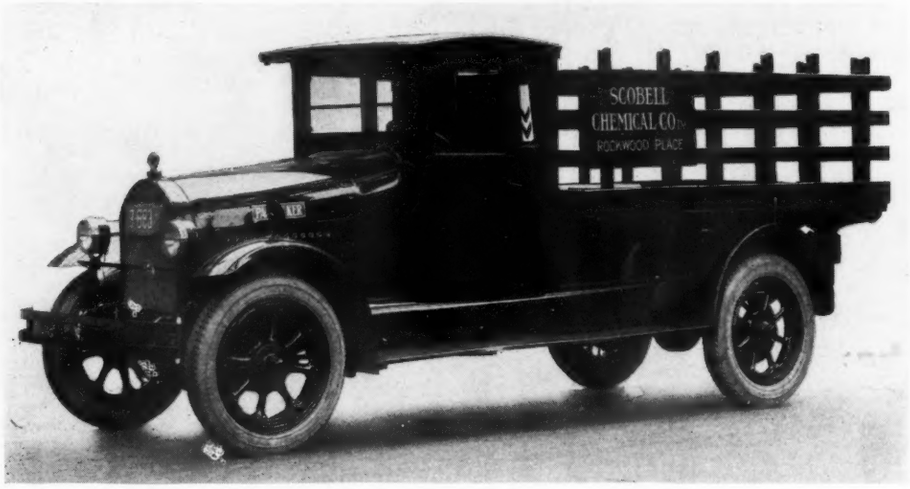
PIERCE Governors

Manufactured by

The Pierce Governor Co.

"World's Largest Governor Builders"

Anderson, Indiana



PACEMAKER Builds Up Dealer's Profits

"You have given us something real to sell," says our Distributor in Schenectady, N. Y., who sold seven PACEMAKERS in twenty-four days (besides heavier trucks).

"You've got to step on the gas to give me all the PACEMAKERS I'll sell," says our Rochester, N. Y., Distributor, who sold three in one morning to customers who called on the telephone on their own initiative.

"It's the best 1¼-ton job on the market," says our Syracuse Distributor, who sold four in less than three weeks.

ALL Selden Dealers are just as enthusiastic because the PACEMAKER fills the demand for a ***better speed truck*** which has more power, more speed, more carrying capacity and is as easy to handle as a high-grade passenger car.

This opportunity to BUILD UP YOUR PROFITS is yours if your are in open territory, provided you act immediately.

The Selden complete line offers an "In-Built Quality" heavy-duty model to fit every transportation need—1½, 2, 2½, 3, 3½, 4 and 5-7 ton capacity.

Liberal Time-Payment Terms
to Approved Risks

Selden Motor Trucks

Manufactured in
ROCHESTER, N. Y.